**IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF CALIFORNIA**

CHRISTOPHER MCKAY, TERRY MYERS, and DIANE OUTLAW, as individuals, on behalf of themselves, the general public, and those similarly situated,
 	
       Plaintiffs,
 	
  -against-
 	
SAZERAC COMPANY, INC.,
 	
       Defendant.
	Case No. 3:23-cv-00522-EMC

DECLARATION OF DR. MOSHE E. BEN-AKIVA

MAY 21, 2024

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I.   Qualifications

1.   I, Moshe E. Ben-Akiva, am the Edmund K. Turner Professor of Civil and Environmental Engineering at the Massachusetts Institute of Technology ("MIT") and Director of the MIT Intelligent Transportation Systems Lab. I hold a Bachelor of Science in Civil Engineering from the Technion-Israel Institute of Technology, a Master of Science in Civil Engineering from MIT and a Doctor of Philosophy in Transportation Systems from MIT. I hold honorary degrees from the University of the Aegean, the Université Lumière Lyon, the KTH Royal Institute of Technology, and the University of Antwerp. My academic and professional work has centered on demand modeling, econometrics, market research, transportation systems analysis, intelligent transportation systems, and infrastructure management. At MIT, I teach graduate courses in Demand Modeling and Advanced Demand Modeling and previously taught Transportation Systems Analysis and an undergraduate course in Multivariate Data Analysis. I also teach two courses – Discrete Choice Analysis: Predicting Individual Behavior and Market Demand, Transportation Networks and Smart Mobility: Methods and Solutions – for MIT's Professional Institute.

2.   I have co-authored the textbook *Discrete Choice Analysis*, and nearly 400 papers in peer-reviewed journals or conference proceedings. I am co-author with Nobel Prize winning economist Daniel McFadden and Kenneth Train of *Foundation of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis* (2019). I have been awarded the Lifetime Achievement Award of the International Association for Travel Behavior Research, the Jules Dupuit prize from the World Conference on Transport Research Society, the Robert Herman Lifetime Achievement Award in Transportation Science from the Institute for Operations Research and Management Science, and the Institute of Electrical and Electronics Engineers Intelligent Transportation Systems Society Outstanding Application Award for DynaMIT, a real-time simulator with algorithms for dynamic traffic assignment, traffic predictions and travel information and guidance.

3.   My areas of expertise include discrete choice analysis, demand modeling, microsimulation, behavioral surveys, market research, and econometrics, and I have developed many of the discrete choice and demand modeling techniques that are being applied widely in a variety of disciplines and industries. I have participated in consulting

and litigation support projects across a range of industries including packaged goods, transportation, energy, telecommunications, financial services, automobiles, airlines, entertainment and tourism and marketing for several public and private organizations, including the Hague Consulting Group, Rand Europe, ChoiceStream, Gershenfeld Consulting, The Brattle Group, Analysis Group, and Cambridge Systematics.

4. My curriculum vitae is attached as **Appendix A** and provides additional details including a list of my publications. It also lists the entities for which I have performed litigation support work. During the previous 4 years, I have testified as an expert at trial or by deposition only once, in the case SH 130 Concession Company, LLC v. Central Texas Highway Constructors, LLC, Ferrovial, Cintra, and Zachry, case no. 16-10262-TMD.

II.   Background

5. I have been retained by the Plaintiffs in connection with Christopher McKay, Terry Myers and Diane Outlaw ('Plaintiffs') versus Sazerac Company, Inc. ('Defendant'). Sazerac is the maker of Fireball Cinnamon Whisky and Fireball Cinnamon malt beverage products. The Plaintiffs allege that they and other consumers have been deceived by the Defendant's "false, deceptive and unlawful practices in labeling and marketing"[1] into purchasing Defendant's Fireball Cinnamon malt product.

6. More specifically, Plaintiffs allege that Defendant uses for its Fireball Cinnamon malt product "labeling that is substantially identical" to its Fireball Whisky product and "deceptive packaging that is customarily used for a single-serving of a distilled alcoholic beverage."[2] These practices on the part of the Defendant are alleged to have misled consumers into purchasing the Fireball Cinnamon malt product thinking that they are purchasing Fireball Cinnamon Whisky. Because the malt beverage contains only whiskey flavor rather than actual whiskey and has less than half the ABV (alcohol by volume) of

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[1] First Amended Complaint, Case No. 3:23-cv-00522-EMC: *Christopher McKay, Terry Myers, and Dawn Outlaw v. Saverac Company, Inc*. at ¶ 1 ('Complaint').

[2] Complaint, ¶ 2.

the whiskey product, consumers are unknowingly buying a product that they are likely to consider to inferior "for the same price or more than actual Fireball Whisky."[3]

III.   Assignment, Summary, and Materials Relied Upon

7. I have been asked by Plaintiffs to opine on whether reliable methodologies exist to achieve the following objectives and, if so, to propose the methods I would use to accomplish the objectives:

   a. Objective 1: To determine whether consumers are deceived by the Fireball Cinnamon label and packaging, i.e., to determine the portion of the market that is misled by the Defendant's marketing practices into thinking that the Fireball malt beverage is a whiskey product.

   b. Objective 2: To determine whether the deception, if any, is material to consumers' purchasing decisions.

   c. Objective 3: To measure damages/restitution due to the Class; i.e., the price premium that consumers paid as a result of their false belief that the Fireball Cinnamon is whiskey and has the alcohol content of whiskey.

8. With respect to Objective 1, it is my opinion that consumer deception can be measured objectively using direct survey techniques that are generally accepted in the fields of market research and survey design. I propose a methodology for measuring consumer deception in Section V.

9. With respect to Objective 2, it is my opinion that materiality can be measured objectively using direct survey techniques that are generally accepted in the fields of market research and survey design. I propose a methodology for measuring materiality in Section V.C.

10. With respect to Objective 3, it is my opinion that damages/restitution can be measured on a class-wide basis using methodologies that are generally accepted in the fields of discrete choice analysis and market simulation. To measure damages, I propose a two-step process:

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[3] Complaint, ¶ 17.

      a. Step 1: I will conduct a choice-based conjoint (CBC) survey. This methodology is described in Section VI.

      b. Step 2: Using the data from the CBC, I will estimate damages/restitution by performing market simulation to determine the price premium that was paid by the buyers of the Fireball malt beverage. This methodology is described in Section VII.

11. I first discuss, in Section IV, the survey design practices that I will follow to ensure the reliability of the data collected in the consumer perception and CBC surveys.

12. My compensation for time spent on this matter is not contingent upon the nature of my findings nor on the outcome of this litigation. I was assisted on this assignment by Shari Gershenfeld of Gershenfeld Consulting, LLC, who was acting under my supervision for purposes of preparing this report. Plaintiffs retained my services for $1,200 per hour and Ms. Gershenfeld's services at the rate of $600 per hour.

13. In connection with this report, the purpose of which is to describe the approaches I plan to take, I reviewed documents produced as part of this and other litigation, and other published material. The materials I relied upon for this report are listed in **Appendix B**. I have also relied on my education, training, experience, and knowledge. My formulation of the methodologies is ongoing, and I reserve the right to update or revise my approaches and opinions as this work proceeds.

IV. Survey Design

A. Key issues in survey design

14. The reliability of data obtained from a survey is highly dependent on how all components of the survey and its administration are designed. The phrasing of questions, the setting used for a choice experiment, and even the placement of a particular word in a survey question can impact respondents' interpretations and inadvertently influence their responses.

15.   In Ben-Akiva et al (2019)[4], my co-authors and I identify and discuss in detail key issues to address in the design of consumer choice and conjoint surveys, methodologies I will employ in this assignment. These issues are summarized in Table 1 and will be carefully considered and addressed in my design of the surveys described in Sections V and VI of this report.

Table 1: Key Issues in Survey Design

Survey design issue	Description
1. Familiarity	Subjects should be familiar with the class of products and their attributes and experienced in making market choices among them
2. Sampling, Recruitment, Background	Subjects should be sampled randomly from the target population and compensated sufficiently to assure participation and attention. Background on socioeconomic status and purchase history should be collected for sample correction and heterogeneity in choice behavior.
3. Outside Option	Menus should include a meaningfully specified "no purchase" alternative
4. Menu Design	The number of menus, products per menu, attributes per product, and range of attribute values must balance market realism and variation needed for statistical accuracy.
5. Attribute Formatting	The clarity and prominence of attributes should mimic, to the extent possible, the information environment the consumer will face in the real market.
6. Elicitation Frame	Elicitation formats other than hypothetical market choice must balance information value against the risk of invoking incompatible cognitive frames.
7. Incentive Alignment	Elicitations with a positive incentive for a truthful response reduce the risk of carelessness or casual opinion.
8. Subject Training	If training is necessary to provide familiarity and experience with products, it needs to mimic the "street" training provided by real markets and minimize manipulation that is unrealistic.
9. Calibration and Testing	Consistency and reality checks should be built into the study, and forecasting accuracy should, if possible, be tested against external data.

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[4] Ben-Akiva, M., McFadden, D. and Train, K. (2019), "Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis," Foundations and Trends® in *Econometrics*: Vol. 10: No. 1-2. http://dx.doi.org/10.1561/0800000036, p.13

Source: Adapted from Ben-Akiva et al (2019), "Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis."

16.   Consistent with best practices in survey design, the information and context provided to respondents in the choice experiments that I describe below will be aligned with the information they would be exposed to in the real marketplace. Of particular importance to the surveys for this assignment are the design of choice sets and elicitation frameworks that will be used (items 4, 5 and 6 in Table 1). Choice set design includes determining which options and attributes of those options to show to respondents, and the precise terms and labels used to describe all the elements of the choice sets.

17.   Similarly, the elicitation framework used for the choice experiments will mimic, to the extent possible, respondents' actual shopping/purchasing situations. This framework includes the context provided (e.g., "Imagine you're hosting a party…"), the choice setting (e.g., "You see the following products in a liquor store…"), and the form of the choice task (e.g., "Select the product that you would most likely buy…"). The design of each of these elements can materially influence respondents' expressed preferences.

18.   Essential steps in the survey design process that I will employ to ensure data reliability and quality are qualitative in-depth interviews, survey pretests and pilot tests.[5] These steps apply to both the consumer deception and CBC surveys described in Sections V and VI respectively.

B.   Qualitative interviews

19.   Prior to the programming of the surveys, in-depth one-on-one interviews will be conducted with 10-12 California residents who are in the target populations for the surveys. The purpose of these qualitative interviews is to confirm that the planned survey design is using language and concepts that are clear and comprehensible, and choice tasks that are realistic and mimic respondents' actual experiences evaluating and making purchase decisions for the products in the actual marketplace. The interviews will be used to identify all relevant attributes of the products and to ensure that the choice experiments

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[5] Diamond, Shari (2011), "Reference Guide on Survey Research". In *Reference Manual on Scientific Evidence*: Third Edition, Federal Judicial Center/National Academy of Sciences, p.388.

are aligned to the extent possible with the settings and decision-making processes that consumers experience and use in the real world.

20. Participants will be screened and recruited to take part in these interviews via Zoom calls. A discussion guide will be developed and used to engage each interviewee in an open-ended discussion of topics such as:

- Types of alcohol products/beverages they consume

- The terms they use to refer to various alcoholic beverage product categories and their understanding of terms that I am considering using in the survey, e.g., "distilled spirits", "malt beverage", "alcohol by volume", "proof", etc.

- How and where they purchase various types of alcohol products

- Factors that influence their purchase decisions for certain types of alcohol products

- Descriptions of their most recent in-store purchases of certain types of alcoholic beverages

21. The findings from these qualitative interviews will inform the design of the questionnaires for both surveys that I describe in this report.

C. Survey Pretests

22. Once each draft survey has been programmed in survey software, a pretest will be conducted with 6 to 8 individuals who qualify for the target population for that survey. The objectives of the pretest are to make sure participants have no technical issues with the survey software, can easily navigate through the survey screens, and, most importantly, understand the language, concepts, questions, choice tasks and instructions on each screen.

23. The pretests will also be used to determine whether participants are able to discern the true purpose of the survey, which the survey will designed to hide.

24. The pretests will be conducted in one-on-one Zoom sessions by a moderator who is blind to the research purpose/sponsor. Once on the call, a pretest participant will be sent a link to access the survey and will be asked to share their screen. The overall format of the pretest is to allow the participant to go through the survey as they normally would and

articulate any confusion, difficulty, or questions they may have as they go along. On a given screen, once the participant has been given an opportunity to provide any unprompted comments, the moderator may prompt the participant with a specific question to ensure the participant's understanding. Included in the pretest sessions will be those taking the survey on computers and those taking it on mobile phone/tablets to detect any issues that may be exclusive to one type of device. Revisions to the programmed survey will be made, if necessary, based on the pretest findings.

D. Pilot tests

25.   While pretests are used primarily to test the questionnaire, pilot tests will be conducted with larger samples of respondents to ensure the reliability of the full survey process from recruitment to survey completion. Respondents will be recruited and incentivized in the same way and from the same sampling frame as they will be for the full survey.

26.   Examination of the pilot test data provides further opportunity to ensure that there are no technical or programming issues with the survey software and that data are being collected and coded correctly. It also enables us to further detect issues with the questionnaire construction or the quality of the sample from which respondents are being drawn. For example, if the pilot data show that many respondents are exhibiting inattentiveness as evidenced by intentionally included illogical or phony response options, measures may need to be taken to mitigate the issue.

E. Survey Administration

27.   The survey will be self- administered by survey respondents who will be able to access it via a computer or mobile device. While no human surveyors will be involved in the survey, precaution will be taken to avoid the survey administration company knowing the purpose of the survey to avoid any possibility of such information being conveyed to respondents.

F. Data cleaning

28.   The raw data will be checked to eliminate from the data sets respondents who are detected to have been inattentive, spent too little time, have taken the survey more than once, selected the same alternative in every experiment, or committed other logical errors.

V.   Consumer Deception Survey

A.   Survey structure

29.   To measure consumer deception and materiality, I will design and conduct a survey with two different experiments. The use of survey experiments to measure consumer deception and materiality is generally accepted in deception studies and considered to be state of the practice.[6] The first experiment, which I refer to as the perception experiment, will be designed to assess the extent to which consumers' perceptions about the composition of Fireball Cinnamon (malt product) are different from their perceptions about the composition of the corresponding-sized versions of Fireball Cinnamon Whisky. The second experiment, which I refer to as the preference experiment, will be used to assess whether the type of alcohol (malt versus whiskey product) is material to consumers' purchasing decision—i.e., whether it significantly impacts consumer preference. Survey respondents will be randomly assigned to experiment 1 or 2.

30.   The target population for the survey will be California residents aged 21 or older who have purchased alcoholic beverages at a retail establishment for their own consumption in the past 12 months. This definition of the population is appropriate as it represents the market of consumers who have the potential to be exposed to, consider, and purchase the product.

31.   The survey will be structured as follows:

> a.   An introductory statement, e.g.:
>
> > i.   Thanks for your participation in this research. We are conducting research on a variety of topics. Please read every screen carefully and give your honest answers and opinions. Your responses will be anonymous.
>
> b.   Screener questions to determine respondents' inclusion in the target population, i.e. age, state of residency, and whether they have purchased

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[6] Diamond, S., & Swann, J. B. (Eds.) (2012). *Trademark and Deceptive Advertising Surveys: Law, Science, and Design*. American Bar Association, Section of Intellectual Property Law.

alcoholic beverages for their own consumption in the past 12 months. These questions will be formulated so as not to tip the respondent off to the required qualifications, e.g.:

   i. What is your age?

      1. Under 18 (SURVEY WILL BE TERMINATED)

      2. 18-20 (SURVEY WILL BE TERMINATED)

      3. 21-29

      4. 30-39

      5. 40-59

      6. 60-79

      7. 80 and older

   ii. In what state do you reside?

An alphabetical drop-down list with all 50 states and US territories, as well as a 'None of these' option, will be provided. For anyone not selecting California, SURVEY WILL BE TERMINATED.

c. Additional screener questions also will be asked to disqualify respondents who have recently been involved in research about alcoholic beverages or who work in certain industries that might pre-dispose them to have industry knowledge or opinions about the survey topic that would bias their responses. These questions will be designed in such a way as to mask the topic and purpose of the survey, e.g.:

   i. During the past 6 months, have you participated in any survey, focus group, interview or other type of research related to any of the following topics? (Select all that apply)

      1. Automobiles

      2. Mobile phones

      3. Packaged foods

      4. Packaged beverages

      5. Prescription drugs

      6. None of the above

Order of response options will be randomized across respondents except for 'None of the above' which will be anchored at the end of the list. If 'packaged beverages' is selected, SURVEY WILL BE TERMINATED.

ii. Do you or does anyone in your family work in any of the following industries? (Select all that apply)

      1. Automobiles

      2. Mobile phones

      3. Packaged foods

      4. Packaged beverages

      5. Prescription drugs

      6. Market research

      7. None of the above

Order of response options will be randomized across respondents except for 'None of the above' which will be anchored at the end of the list. If 'packaged beverages' or 'market research' is selected, SURVEY WILL BE TERMINATED.

d. Final qualification to determine if respondent has purchased an alcoholic beverage in a retail location for their own consumption during past 12 months, e.g.:

i. During the past 12 months, have you purchased any alcoholic beverages for your own consumption at any of the following? Select all that apply.

1. Eating or drinking establishment (e.g., bar, restaurant, café)

2. Retail store (e.g., liquor store, supermarket, convenience store, drug store)

3. Online (e.g., via a website or app)

4. None of the above

Order of response options will be randomized across respondents except for 'None of the above' which will be anchored at the end of the list. If 'retail store' is not selected, SURVEY WILL BE TERMINATED.

e. Perception/preference questions to elicit respondents' understanding of the type of alcohol contained in a bottle with a particular label, and their preferences for a cinnamon malt-based alcohol versus a cinnamon whisky product. My approach to these questions, which are the substance of the survey, is discussed in section B below.

f. Control questions to identify respondents' demographic and socio-economic characteristics (e.g., gender, race/ethnicity, education level, income level) and additional questions about respondents' alcoholic beverage purchase and consumption behavior (e.g., the categories and brands of alcoholic beverages that respondents have purchased and consumed over the past 12 months). This information will be used to enable understanding of the characteristics of the consumers who are deceived and will be asked at the end of the survey after the experiments.

B. Perception experiment

32. For the perception measurement, respondents will be randomly assigned to one of two question versions. In one version, respondents will be shown an image of an actual Fireball Cinnamon bottle; in the other version, respondents will be shown an image of the corresponding-sized version of Fireball Cinnamon Whisky. In each version, respondents will be asked the same question about the type of beverage they expect is in the bottle.

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Response options will include such categories as malt-based alcohol, distilled spirits, and other categories of alcoholic beverages. Response options of non-alcoholic beverage, as well as 'Don't know' and 'None of the above' responses also will be included to ensure that respondents have the full range of response options available to them. Response options (other than 'Don't know' and 'None of the above' which will be anchored at the end of the list) will be randomized to avoid order effects.

33.   Following is an example of how this question may be formulated:

  a.   Imagine that you are at a store and you see the following bottle for sale.

       IMAGE WOULD BE SHOWN HERE

       Based on the image above, which of the following comes closest to your understanding of the type of beverage contained in the bottle?

       i.   Beer or other malt-based beverage

       ii.   Distilled spirits (i.e. brandy, gin, rum, tequila, vodka or whiskey)

       iii. Wine

       iv.   Another type of alcohol

       v.   A non-alcoholic beverage

       vi.   Don't know

       vii. None of the above

    Order of the first three response options will be randomized across respondents. The other options will be positioned as shown.

C. Preference experiment

34.   For this experiment, a different set of respondents will be shown one of two versions of a side-by-side comparison of two products described by a set of attributes. The attributes may include brand, bottle size, alcohol volume, type of alcohol, price, and potentially other attributes as determined by the qualitative interviews. In both versions of the side-by-side comparison, attribute values, such as brand, size and price will the same between the two products; only the type of alcohol (cinnamon-flavored whiskey or cinnamon-

flavored malt beverage) and its respective alcohol volume will differ between the two products. The only difference between the two preference question versions will be the position (on the right versus the left) in which the whiskey and malt beverage products are shown in the side-by-side comparison to control for any order bias.

35.   In both preference question versions, respondents will be asked a preference question with response options including either one of the beverages or 'Don't know'. In a subsequent question, I will ask respondents who express a preference for one or the other of the products if they would purchase this product, thus providing a "no buy" option. This two-question approach enables more preference data to be collected, while still enabling respondents to "opt out" of purchasing either of one of the products, all of which is valuable information that would be used in analysis of the data.

36.   This data will objectively demonstrate whether the change in particular attributes (e.g., alcohol volume, type of alcohol) substantially affects consumers' preference for the products. In other words, whether the attributes are material to their purchase decision.

VI.   Choice-based Conjoint Survey

A.   Overview of survey

37.   The objective of this survey is to measure the price consumers would have paid for the Fireball Cinnamon malt product in the but-for world, where they were aware of its true composition. Since such information cannot reliably be obtained by directly asking people how much they would have paid, I employ a CBC methodology for eliciting preferences from survey respondents. CBC is often applied, as it will be in this case, to consumers of products or services. Respondents are presented with a series of menus of alternatives which are described by relevant attributes, each of which has various possible levels or values. The levels that are shown to a given respondent in each choice task are determined by an underlying experimental design. Respondents are asked to express preferences or make a choice among them.

38.   The CBC approach is described in Ben-Akiva et al (2019).[7] In a recent publication, Derpanopoulos et al (2021) review recent applications and demonstrate that the specific CBC techniques that I will apply represent the state of the art in litigation analyses.[8] They also argue that careful attention to the design and implementation is essential.[9]

39.   The target population for this survey will be California residents aged 21 or older who in the past 12 months:

   a.   have purchased any Fireball product; AND

   b.   have purchased any alcoholic beverages for their own use in a supermarket, convenience store, gas station, or drug store in the past 12 months.

40.   The survey will be structured as follows:

   a.   Screener questions (like those outlined in section V) to eliminate those who do not qualify for the survey due to:

       i.   Age under 21

       ii.   State of residency not in California

       iii.   Employment in particular industries that might pre-dispose them to have industry knowledge or opinions about the survey topic that would bias their responses.

   b.   Revealed preference or actual behavior questions about respondents' alcoholic beverage purchases to further qualify respondents. These questions will include the following.

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[7] Ben-Akiva et al (2019), pp.

[8] Derpanopoulos, George, Overmann, J. and Wazzan, C.P. (2021). The use of conjoint analysis in high-stakes litigation: A historical review up to Navarro et. al., v. Procter and Gamble, which withstood a rigorous Daubert challenge. *J. Pat. & Trademark Off. Soc'y*, *102*, pp.502-526.

[9] Derpanopoulos et al (2021), p.526.

    i. Types of retail stores in which they most frequently purchase alcohol, e.g.:

        1. During the past 12 months, in which of the following types of stores, if any, did you purchase an alcoholic beverage for your own consumption? Select all that apply.

            a. Liquor store

            b. Supermarket/grocery store

            c. Convenience store, including those at gas stations

            d. Drug store

            e. None of the above

        Order of response options will be randomized across respondents except for 'None of the above' which will be anchored at the end of the list. If only 'Liquor store' or if 'None of the above' is selected, SURVEY WILL BE TERMINATED.

    ii. Types of alcohol purchased in the past 12 months, e.g.:

        1. During the past 12 months, which of the following types of alcohol have you purchased for your own consumption?

            a. Beer or other malt-based beverage

            b. Distilled spirits (i.e. brandy, gin, rum, tequila, vodka or whiskey)

            c. Wine

            d. Another type of alcohol

            e. Don't know

            f. None of the above

    iii. Brands of alcohol purchased in past 12 months

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      c.   *Stated preference questions* in the form of choice experiments.

      d.   *Demographic and socio-economic characteristics*

B.   Choice experiments

1.   Experimental context

41.   The context for choice experiments should mimic reality as much as possible. As described above, respondents will be asked about their past 12 months purchase behaviors *prior* to the choice experiments to put them in mind of the choices they have made in the past and the setting(s) in which they did so. Thus, when respondents are instructed to imagine that they are in a store shopping for alcoholic beverages, the context that comes to mind will be one that is familiar to and realistic for them.

2.   Choice sets

42.   The choice sets presented to respondents will include three or four alcoholic beverage options displayed side by side on the survey screen. Each option will be described by the same set of attributes. Each attribute will have a certain set of levels or values, which will vary across products and choice sets. Certain of these attribute values, such as those for price or size, will be numeric and others, such as brand and product name will be textual or pictorial.

43.   The attributes and levels by which these products will be described are:

      a.   Brand – in addition to Fireball, the most popular brands that compete with Fireball products, e.g., Jack Daniels, Crown Royal, etc. Defendant has indicated that its competition includes "other beverages, both alcoholic and non-alcoholic, available at retail locations" where their product is sold.[10]

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[10] Defendant's First Supplemental Responses and Objections to Plaintiff's First Set of Interrogatories, Case No. 23-cv-00522-EMC, p.7-8.

b. Product "Name" (as shown on label) – e.g., Cinnamon Whisky, Cinnamon, Irish Whiskey, etc. Brand and Product levels will be based on IRI data and potentially other marketing data that I am able to obtain.

c. Size – while Fireball Cinnamon malt beverage is primarily sold in 50ml and 100ml bottles, most other products, including Fireball Cinnamon Whisky, are sold in other sizes as well to meet a variety of consumer preferences.[11] Other bottle sizes (including of Fireball Cinnamon malt) will be used to introduce additional variation across the options.

d. Alcohol by Volume (ABV) percentage – the ABV or proof of an alcoholic beverage is a relevant factor for many consumers.[12] Different alcohol types may have their own sets of ABV levels in the choice experiments in order to ensure the credibility of the options.

e. Alcohol Type – this attribute, which varies according to the brand and product, will be used to convey information about the type of alcohol base for the product (e.g., malt-base, wine-base, and whiskey-base).

f. Price – price levels will be based on a reasonable range of actual prices for products in the market. IRI data will be used to determine this range. Each product size will have its own set of price levels.

44. For each choice set, the attributes will be displayed with Brand at the top, Price at the bottom, and all other attributes in a randomized order in between. The randomized ordering of the other attributes will only be done *across* respondents; to do so within respondents would only serve to confuse them. The experimental design randomly samples values for the various attribute levels, with certain constraints imposed to avoid creating illogical alternatives.

45. In order to make the choice sets realistic, I will design them to represent the types of alternatives that a consumer is likely to see at a particular type of store. Certain choice

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[11] "Shooters - Nov.'22 Brand Meeting Presentation", Sazerac-CM_00078975.

[12] "IWSR - No & Low Alcohol Strategic Study - Dec 2022 – US", Sazerac-CM_00103516.

sets will represent the non-liquor store settings (i.e. convenience stores, grocery stores, drugstores);[13] distilled spirits alternatives such as Fireball Cinnamon Whisky will not be included in these, since such products cannot legally be sold in these retail establishments. Other choice sets will be designed to represent liquor store settings, in which Fireball Cinnamon malt beverage legally can be sold, but where it often is not carried. Each choice set will include at least one Fireball alternative.

46.   I will include in the choice tasks one "dummy" choice set that includes a clearly dominant alternative to identify survey respondents who are either not paying attention or are just randomly selecting responses. An example of such a choice set is one in which all attributes, including brand, are the same level except for price. If a respondent fails to choose the lowest priced option, it may be a cause to eliminate their data from the data set.

47.   Each respondent will be presented with 5 or more choice sets, depending on how long the survey, once fully designed, takes to complete.

C.   Choice task

48.   The choice task refers to what the respondent is specifically being asked to do when presented with a choice set. For this survey, the choice task will be to select the most preferred option from among the products in the choice set. Rather than be given a no-buy option in this preference task, respondents will subsequently be asked how likely they would be to purchase the preferred product, thus allowing for a no-buy alternative. This approach provides for a no buy option while also providing more preference information to be collected.

49.   The design described in the preceding paragraphs will be refined based on the qualitative interviews, IRI data, and additional evidence that may be produced from Defendant.

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[13] "Sazerac_RNDC C-Store Deep Dive 11.11.20", Sazerac-CM_0001580.

VII. Estimation of Damages

A. Market simulation and damage estimation

50.   The methodology I use to estimate the damages is based on the concept of a price premium which is the difference between the market price of the product with the deception and without it. Werner and Glasgow (2021) and Horvath (2023) conducted reviews of recent trends in litigation involving consumer deception and concluded that using choice-based conjoint combined with estimation of price premium with market simulation is the most favored approach.[14,15] In a case of deception, the price premium is the difference between the price actually paid and an estimate of the market price of the same product if the consumers were fully informed about its attributes, or the 'but-for' scenario. In this litigation it is the difference between the actual price of the Fireball malt beverage and the price the seller would have charged if consumers were not deceived to believe they were buying a whiskey beverage with an ABV of 33%.

51.   To estimate the price premium, we will perform market simulation and compute prices at equilibrium of demand and supply under two scenarios, the existing and the 'but-for.' The demand model that is obtained from the analysis of CBC survey is calibrated to represent the existing market quantity and price. Then by setting the values of the attributes representing the deception, I will obtain a demand model representing the 'but-for' market. The supply situation is assumed to remain unchanged.

B. Analysis of the CBC survey

52.   The CBC data will be used to estimate a choice model. The most widely used choice model used with CBC data is known as Normal Logit Mixture or Mixed Logit. A choice model predicts the probability of every option in a set of alternative products representing the market supply. A mixture model includes individual specific utilities representing

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[14] Werner, D. and Glasgow, G. (2021).

[15] Horvath, A.T. "*Damages Estimation in Consumer Deception: Class Actions* Legal and Methodological Issues, Chapter 13 in Gersen, J.E. and Steckel, J.H. eds., 2023. *The Cambridge Handbook of Marketing and the Law*. Cambridge University Press.

consumer preferences as functions of product attributes. The market demand is determined by "mixing" or integrating over the distribution of preferences among potential consumers. The model has unknown parameters that are estimated to match the observed choices in the CBC survey.
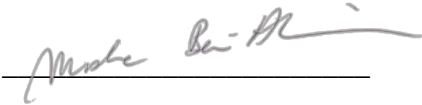
53. The statistically optimal estimator of the choice model's unknown parameters is maximum likelihood. There is an alternative estimator, useful with CBC data, that produces the same estimation results as Maximum Likelihood. This estimator that I will use is called the Allenby-Train estimator and it is described in Ben-Akiva et al (2019). In the market research literature, it is often referred to as Hierarchical Bayes (HB) because it is a Bayesian estimator with uninformative prior where individual specific preferences are treated as unknown parameters. The output of this analysis is an individual specific Logit Mixture choice model for all the survey observations.

C. Market simulation and damage calculation

54. I considered supply side factors when developing this model. I will use the survey sample (with appropriate weights to represent the consumers in the market) with the CBC individual-specific choice models to simulate the market demand. The key inputs to such simulations are the choice sets available in the market. The simulation model is first calibrated against IRI market data to match the existing product prices and quantities. Then the product attributes are modified to represent the 'but-for' scenario and the market simulation is used to compute the product's price that matches the existing supply. This simulation is based on an assumption that the seller under the 'but-for' scenario would not alter the product supply. The difference between the existing price and the estimated 'but-for' price is the price premium, which I will express as a percentage of the existing price.

55. In this case, the relevant market pertains to those stores where the Fireball Cinnamon malt beverage is typically sold, which is the non-liquor store market, i.e. convenience stores, supermarkets, grocery stores, drugstores, etc.

56. The existing total product revenues during the claim period in dollars multiplied by the price premium percentage and divided by 100 equals the total damages in dollars.

I declare under penalty of perjury under the laws of the United States that the foregoing is
 true of my own personal knowledge.

Submitted on May 21, 2024:

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Moshe E. Ben-Akiva, PhD

VIII. Appendix A: Curriculum Vitae

Moshe E. Ben-Akiva
Edmund K. Turner Professor
Department of Civil & Environmental
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1. **Date of Birth:** June 11, 1944

2. **Title:**

   Edmund K. Turner Professor of Civil and Environmental Engineering

   Director, MIT Intelligent Transportation Systems (ITS) Lab

3. **Areas of Specialization:**
   - Demand Modeling
   - Discrete Choice Analysis with Machine Learning
   - E-Commerce and Urban Freight
   - Econometrics
   - Intelligent Transportation Systems
   - Market Research
   - Road Pricing Strategies
   - Smart Mobility Methods and Solutions
   - Transportation Systems Analysis

4. **Year joined MIT Faculty:** 1973

5. **Degrees:**

   - B.S., Civil Engineering, Technion-Israel Institute of Technology, 1968
   - S.M., Civil Engineering, MIT, 1971
   - Ph.D., Transportation Systems, MIT, 1973

6. **Honors, Awards, and Media Recognition:**

   Lifetime Achievement Awards

   - International Association for Travel Behaviour Research (IATBR) Lifetime Achievement Award, August 2006
   - Dupuit Prize, World Conference on Transport Research Society (WCTRS), July 2007

- Awarded IEEE Intelligent Transportation Systems Society Outstanding Application Award – DynaMIT, April 2011
- Robert Herman Lifetime Achievement Award in Transportation Science, Institute for Operations Research and the Management Sciences (INFORMS) Transportation Science and Logistics (TSL) Society, October 2017

Honorary Doctorates

- Docteur Honoris Causa degree, Université Lumière Lyon, France, July 1992
- Honorary Doctorate Degree, University of the Aegean, Chios, Greece, October 2000.
- Honorary Doctorate Degree, Royal Institute of Technology (KTH), Stockholm, Sweden, November 2008
- Doctor Honoris Causa, University of Antwerp, Belgium, April 2010

Other Awards

- Operations Research Society of America (ORSA) Transportation Science Dissertation Award, second prize, 1973
- Lady Davis Fellowship as Visiting Associate Professor, Technion-Israel Institute of Technology, 1978
- MIT Department of Civil and Environmental Engineering Effective Teaching Award, 1995
- Named Edmund K. Turner Professor of Civil and Environmental Engineering, September 1996.
- *Professor Extraordinary*, Stellenbosch University, January 2005
- Samuel M. Seegal Prize, MIT, awarded to a professor who 'inspires students in pursuing and achieving excellence', May 2007
- Pyke Johnson Award for the best paper in the area of planning and environment – awarded by the Transportation Research Board Executive Committee for paper entitled "Exploratory Analysis of a Smartphone-Based Travel Survey in Singapore," January 2016
- Best Simulation Application Paper Award, Transportation Research Board Joint Traffic Simulation Subcommittee, January 2018

Media Recognition

- Featured in *New York Times* article, ''Smart' Plans for Clogged Roads,' November 1991
- Featured in front-page *Boston Globe* article on the MIT ITS traffic simulator, January 31, 1996
- *Boston Globe* article featuring DynaMIT, 'Driving Smarter,' February 6, 2005

- *ABC World News Tonight with Peter Jennings,* story on new technologies to combat growing traffic problems across America, February 15, 2005
- *Wall Street Journal* article detailing the functionality, features, and applications of DynaMIT, "Blue Sky Thinking," June 4, 2010
- *Mashable* article featuring DynaMIT and SMART-FM, "Why the Future of Transportation is All About Real-Time Data," July 27, 2011
- *Atlantic Cities* article highlighting research conducted with Maya Abou-Zeid on travel mode switching, "Even American Drivers Like Mass Transit More Than They Think," December 12, 2012

7.   Subjects taught in the last two years:

- 1.201, Transportation Systems Analysis: Demand and Economics (graduate)
- 1.202, Demand Modeling (graduate)
- 1.205, Advanced Demand Modeling (graduate)
- 14.61s, Discrete Choice Analysis: Predicting Demand and Market Share (MIT Professional Education short course)
- 1.10s, Modeling and Simulation of Transportation Networks (MIT Professional Education short course)
- 1.074, Multivariate Data Analysis (undergraduate)

8.   Scientific and Professional Society Membership:

- American Society of Civil Engineers
- American Statistical Association
- Association of European Transport
- The Econometrics Society
- Institute for Operations Research and the Management Sciences (INFORMS)
- International Association for Travel Behavior Research (IATBR)
- Transportation Research Board
- World Conference on Transport Research Society (WCTRS)

9.   Select Scientific Journals:

- Editorial Board, The Journal of the Regional Science Association International, 2004 - 2005
- Editorial Board, Transportation Research-C, 2006 – 2008
- Editorial Advisory Board, International Journal of Transport Economics, 2007
- Editorial Advisory Board, Journal of Choice Modeling, 2007
- Advisory board of Editors, Transportation Science, INFORMS (formerly Associate Editor), 2008
- Editorial Board, EURO Journal on Transportation and Logistics, 2011

10.   Select Consulting:

27

- Cambridge Systematics, 1972 - 2015
- Hague Consulting Group, 1985 – 2002
- Choice Stream, 2001 – 2013
- RAND Europe, 2002 - 2007
- Nordea, 2017 - 2019

Litigation Support:

- Analysis Group
- Brattle Group
- Cravath, Swaine and Moore
- Boies, Shiller, and Flexner, LLPO
- AMTRAK
- MA Attorney General's Office

11.   Publications:

Books

1. Richards, M. G. and Ben-Akiva, M., (1975), A disaggregate travel demand model. Farnborough, Hants, Saxon House.

2. Ben-Akiva, M. and Lerman, S. R. (1985), Discrete choice analysis: theory and application to travel demand, Cambridge, Mass., MIT Press.

3. Ben-Akiva, M., Van de Voorde, E. and Meersman, H. (eds.), (2008), Recent Developments in Transport Modelling: Lessons for the Freight Sector, UK, Emerald books (Elsevier Science).

4. Ben-Akiva, M., Meersman, H. and Van de Voorde, E., eds. (2013), Freight Transport Modelling, Bingley, UK: Emerald Group Publishing

5. Ben-Akiva, M., McFadden, D., and Train, K. (2019), Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis, Foundations and Trends in Econometrics: Vol. 10: No1-2, pp 1-144

Chapters in Books

1. Ben-Akiva, M. and Bowman, J. L. (1998), Activity based travel demand model systems, *Equilibrium and Advanced Transportation Modeling*, (eds.) Marcotte, P. and Nguyen, S., Kluwer Academic Publishers, pp. 27-43

2. Ben-Akiva, M. and Polydoropoulou, A., 1999. The Effect of Advanced Traveler Information Systems on Travelers' Behaviour. In: R. Emmerink and P. Nijkamp, eds. *Behavioural and Network Impacts of Driver Information Systems*. Surrey, UK: Ashgate Publishing.

3.   Ben-Akiva, M. and Bierlaire, M., 1999. Discrete Choice Methods and Their Application to Short Term Travel Decisions. In: R.W. Hall, ed. *Handbook of Transportation Science.* Boston, MA: Kluwer Academic Publishers.

4.   Ben-Akiva, M., Bierlaire, M., Koutsopoulos, H. and Mishalani, R., (2002), Real-time Simulation of Traffic Demand-Supply Interactions within DynaMIT, Tr*ansportation and Network Analysis: Current Trends. Miscellanea in Honor of Michael Florian*, (eds.) Gendreau, M. and Marcotte, P., London, Kluwer Academic Publishers, pp.19-36

5.   Ben-Akiva, M., Walker, J., Bernardino, A., Gopinath, D., Morikawa, T. and Polydoropoulou, A. (2002), Integration of Choice and Latent Variable Models, *In Perpetual Motion: Travel Behaviour Research Opportunities and Application Challenges*, (ed.) Mahmassani, H., UK, Elsevier Science, pp. 431-470

6.   Ben-Akiva, M. and Bierlaire, M. (2003), Discrete Choice Models with Applications to Departure Time and Route Choice, *Handbook of Transportation Science*, 2nd edition, (ed.) Hall, R.W., Boston, Kluwer Academic Publishers, pp. 7-37 (revised version in new addition of Reference 3 above)

7.   Ben-Akiva, M., Cortes, M., Davol, A., Koutsopoulos, H., and Toledo, T. (2003), Microsimulation of Urban Networks, *World Transport Research*, (eds.) Park, C., Cho, R., Oh, J., Hayashi, Y., and Viegas, J., Pergamon Press

8.   Morgan, D., Koutsopoulos, H. and Ben-Akiva, M. (2003), 'Simulation-based Evaluation of Advanced Public Transportation Systems,' Schedule-Based Dynamic Traffic Modeling: Theory and Applications', (eds.) Wilson, N.H.M. and Nuzzolo, A., vol.28, Kluwer Academic Publishers, pp. 95-102

9.   Ben-Akiva, M., Ramming, M.S. and Bekhor, S. (2004), Route Choice Models, *Human Behaviour and Traffic Networks,* (eds.) Schreckenberg, M. and Selten, R., Berlin, Springer, pp. 23-45

10.   Bolduc, D., Ben-Akiva, M., Walker, J. and Michaud, M. (2005), Hybrid Choice Models with Logit Kernel: Applicability to Large Scale Models, *Integrated Land-Use and Transportation Models: Behavioural Foundations*, (eds.) Lee-Gosselin, M. and Doherty, S., Amsterdam, Elsevier Science, pp. 275-302

11.   Toledo, T., Koutsopoulos, H., Ben-Akiva, M., and Jha, M. (2005), Microscopic Traffic Simulation: Models and Application, *Simulation Approaches in Transportation Analysis*, (eds.) Kitamura, R. and Kuwahara, M., Springer, pp. 99-130

12.   Ben-Akiva, M., McFadden, D., Train, K., Walker, J., Bhat, C., Bierlaire, M., Boersch-Supan, A., Brownstone, D., Bunch, D., Daly, A., DePalma, A., Gopinath, D., Karlstrom, A. and Munizaga, M. (2007), Hybrid Choice Models: Progress and

Challenges, *Transportation Planning,* (eds.) Shiftan Y., Button, K. and Nijkamp, P., Cheltenham, Edward Elgar, pp. 185-201

13. Choudhury, C., Ben-Akiva, M., Toledo, T., Rao, A., and Lee, G. (2007), State Dependence in Driver Behaviour Models, *Transportation and Traffic Theory*, (eds.) Allsop, R., Bell, M., and Heydecker, B., Elsevier Science, pp. 711-734

14. Papageorgiou, M., Ben-Akiva, M., Bottom, J., Bovy, P.H.L., Hoogendoorn, S.P., Hounsell, N.B., Kotsialos, A. and McDonal, M. (2007), ITS and Traffic Management, Transportation, (eds.) Barnhart, C. and Laporte, G., vol.14, Amsterdam, North Holland, Elsevier Science, pp.715-773

15. Ben-Akiva, M., Bolduc, D. and Park, J. (2008), Discrete choice analysis of Shippers' preferences, Recent Developments in Transport Modelling Lessons for the Freight Sector, (eds.) Ben-Akiva, M., Meersman, H. and Van de Voorde, E., UK, Emerald Books (Elsevier Science), pp.135-156

16. Ben--Akiva, M. and De Jong, G. (2008), The aggregate-disaggregate-aggregate (ADA) freight model system, Recent Developments in Transport Modelling Lessons for the Freight Sector, (eds.) Ben-Akiva, M., Meersman, H. and Van de Voorde, E., UK, Emerald Books (Elsevier Science), pp.117-134

17. Balakrishna, R., Ben-Akiva, M., Koutsopolous, H. (2009), Time-dependent origin-destination estimation without assignment matrices, *Transport Simulation Beyond Traditional Approaches*, (eds.) Chung, E., and Dumont, A.G., Switzerland, EPFL press, pp.201-212

18. Ben-Akiva, M., Choudhury, C., and Toledo, T. (2009), Integrated lane-changing models, *Transport Simulation Beyond Traditional Approaches*, (eds.) Chung, E., and Dumont, A.G., Switzerland, EPFL press, pp.61-73

19. Abou-Zeid, M., and Ben-Akiva, M. (2010), A Model of Travel Happiness and Mode Switching. In Hess, S. and Daly, A., eds. *Choice Modelling: The State-of-the-Art and the State-of-Practice,* Proceedings from the Inaugural International Choice Modelling Conference. Bingley, UK: Emerald Group Publishing, pp. 289-305

20. Abou-Zeid, M., Ben-Akiva, M., Bierlaire, M., Choudhury, C., and Hess, S. (2010), Attitudes and Value of Time Heterogeneity. In E. Van de Voorde and T. Vanelslander, eds. *Applied Transport Economics: A Management and Policy Perspective.* Brussels, Belgium: de Boeck, pp. 523-545

21. Ben-Akiva, M., Koutsopoulos, H., Antoniou, C., and Balakrishna, R. (2010), Traffic Simulation with DynaMIT. In J. Barcelo, ed. *Fundamentals of Traffic Simulation.* New York: Springer, pp. 363-398

22. Ben-Akiva, M., Koutsopoulos, H., Toledo, T., Yang, Q., Choudhury, C., Antoniou, C. and Balakrishna, R. (2010), Traffic Simulation with MITSIMLab. In J. Barcelo, ed. Fundamentals of Traffic Simulation. New York: Springer, pp. 233-268.

23. Ben-Akiva, M. (2010), Planning and Action in a Model Choice. In Hess, S. and Daly A., eds. *Choice Modelling: The State-of-the-Art and the State-of-Practice*, Proceedings from the Inaugural International Choice Modelling Conference. Bingley, UK: Emerald Group Publishing, pp. 19-34.

24. Guevara, C. and Ben-Akiva, M. (2010), Addressing Endogeneity in Discrete Choice Models: Assessing Control-Function and Latent-Variable Methods. In Hess, S. and Daly A., eds. *Choice Modelling: The State-of-the-Art and the State-of-Practice*, Proceedings from the Inaugural International Choice Modelling Conference. Bingley, UK: Emerald, pp. 353-370

25. Walker, J. and Ben-Akiva, M. (2011), Advances in Discrete Choice: Mixture Models, In dePalma, A., Lindsey, R., Quinet, E., and Vickerman, R., eds. A Handbook of Transport Economics, Elgar Publishing, pp. 160 – 187

26. Abou-Zeid, M. and Ben-Akiva, M. (2013), 'Satisfaction and travel choices', in Handbook of Sustainable Travel, Gärling, T., Ettema, D., and Friman, M. (eds.), Springer, pp. 53-65.

27. Balakrishna, R., Ben-Akiva, M., Bottom, J. and Gao, S. (2013), 'Information impacts on travel behavior and network performance: state of knowledge and future directions', in Advances in Dynamic Network Modeling in Complex Transportation Systems, Ukkusuri, S. and Ozbay, K. (eds.), Springer, pp. 193-224.

28. Ben-Akiva, M., Bolduc, D. and Park, J. (2013), 'Discrete Choice Analysis of Shippers' Preferences', in Freight Transport Modelling, Ben-Akiva, M., Meersman, H. and Van de Voorde, E., (eds.), Emerald Publishing Group, pp. 121-141.

29. Ben-Akiva, M. and de Jong, G. (2013), 'The Aggregate-Disaggregate-Aggregate (ADA) Freight Model System', in Freight Transport Modelling, Ben-Akiva, M., Meersman, H. and Van de Voorde, E., (eds.), Emerald Publishing Group, pp. 69-90.

30. Ben-Akiva, M., Meersman, H. and Van de Voorde, E. (2013), 'Recent developments in freight transport modelling', in Freight Transport Modelling, Ben-Akiva, M., Meersman, H. and Van de Voorde, E., (eds.), Emerald Publishing Group, pp. 3-13.

31. Toledo, T., Sun, Y., Rosa, K., Ben-Akiva, M., Flanagan, K., Sanchez, R. and Spissu, E. (2013), 'Decision-making process and factors affecting truck routing',

in Freight Transport Modelling, Ben-Akiva, M., Meersman, H. and Van de Voorde, E., (eds.), Emerald Publishing Group, pp. 233-249.

32. Abou-Zeid, M. and Ben-Akiva, M. (2014), 'Hybrid Choice Models', in Handbook of Choice Modelling, Hess, S. and Daly, A. (eds.), Edward Elgar Publishing Ltd., pp. 383-412.

33. Atasoy, B., Ikeda, T., and Ben-Akiva, M. (2016), 'An Innovative Concept for Paratransit: Flexible Mobility on Demand', in Paratransit: Shaping the Flexible Transport Future, Vol. 8, Mulley, C. and Nelson, J.D. (eds), Emerald Group Publishing Ltd, pp. 357-375

34. de Palma, A., Zhao, F. Ghorpade, A., Pereira, F., and Ben-Akiva, M. (2016), 'Big Data and Automated Travel Surveys,' to appear in Big Data Transport Policies (French)

35. Viegas, I., Abou-Zeid, M., Kutadinata, R., Navidi, Z., Winter, S., Zhao, F., and Ben-Akiva, M. (2018), 'Dynamic Modeling of Activity Happiness: An Investigation of the Intra-activity Hedonic Treadmill," in Quality of Life and Daily Travel, Friman, M., Ettema, C., Olsson, L.E. (eds) Springer, pp. 95-118.

36. Atasoy, B., Azevedo, C., Prakash, A., Seshadri, R., Zhao, F., Abou-Zeid, M., and Ben-Akiva, M. (2019). 'Smart Mobility via Prediction, Optimization, and Personalization', in Demand for Emerging Transportation Systems: Modelling Adoption, Satisfaction, and Mobility Patterns. Antoniou, C., Efthymiou, D., and Chaniotakes, E. (eds) Elsevier, pp. 227-265

37. Alho, A., Sakai, T., Zhao, F., You, L., Jing, P., Cheah, L., Zegras, C., and Ben-Akiva, M. (2021). 'Laboratories for Freight Systems Research and Planning Research', in Urban Informatics: The Urban Book Series. Shi, W., Goodchild, M., Batty, M., Kwan, M., and Zhang, A. (eds). Springer Publishing, pp. 171-196.

38. Abou-Zeid, M. and Ben-Akiva, M. (2023). Hybrid Choice Models. Forthcoming book chapter forthcoming in Handbook of Choice Modelling – 2nd edition, Hess, S. and Daly, A. (eds.), Edward Elgar Publishing Ltd.

39. Ben-Akiva, E., Ben-Akiva, M., Cascetta, E., and Quinet, E. (2023). Once Upon a Time in the West: Transportation Infrastructure and Economic Development. Forthcoming book chapter forthcoming in Filmonomics, de Palma, A. and Leruth, L. (eds)

40. Sakai, T., Jing, P., Alho, A., Seshadri, R., and Ben-Akiva, M. (2023). Evaluating City Logistics Solutions with an Agent-based Microsimulation. In Handbook on City Logistics and Urban Freight. Le Pira, M., Marcucci, E., and Gatta, V. (eds.), Edward Elgar Publishing Ltd., Chapter 5, pp. 98-114.

Papers in Refereed Journals

1. Ben-Akiva, M. (1974), 'Structure of passenger travel demand models', *Transportation Research Record,* no. 526, pp. 26-42.

2. Ben-Akiva, M. and Koppelman, F.S. (1974), 'Multidimensional Choice Models: Alternative Structures of Travel Demand Models,' *Transportation Research Board Special Repor*t, vol.149, pp. 129-142

3. Ben-Akiva, M. and Lerman, S.R. (1974), 'Some Estimation Results of a Simultaneous Model of Auto Ownership and Mode Choice to Work,' *Transportation,* vol.3, no.4, Netherlands, Springer, pp. 357-376

4. Richards, M.G. and Ben-Akiva, M., (1974), 'A Simultaneous Destination and Mode Choice Model for Shopping Trips,' *Transportation*, vol.3, no.4, Netherlands, Springer, pp. 343-356

5. Adler, T.J. and Ben-Akiva, M. (1976), 'Joint-Choice Model for Frequency, Destination, and Travel Mode for Shopping Trips,' *Transportation Research Record,* no. 569, pp. 136-150

6. Ben-Akiva, M. and Richards, M.G. (1976), 'Disaggregate Multimodal Model for Work Trips in the Netherlands,' *Transportation Research Record,* no.569, pp. 107-123

7. Lerman, S.R. and Ben-Akiva, M. (1976), 'Disaggregate Behavior Model of Automobile Ownership,' *Transportation Research Record,* no.569, pp. 34-55

8. Atherton, T.J. and Ben-Akiva, M. (1976), 'Transferability and Updating of Disaggregate Travel Demand Models*,' Transportation Research Record,* no.610, pp. 12-18

9. Ben-Akiva, M. and Atherton, T.J. (1977), 'Choice Model Predictions of Carpool Demand: Methods and Results,' *Transportation Research Record,* no.637, pp. 13-17

10. Ben-Akiva, M. and Atherton, T.J. (1977), 'Methodology for Short Range Travel Demand Predictions,' *Journal of Transport Economics and Policy*, vol.11, no.3, pp. 224-261

11. Ben-Akiva, M., Sherman, L. and Kullman, B.C., (1978), 'Disaggregate Model of Non-Home Based Travel,' *Transportation Research Record,* no.673, pp. 128-137

12. Ruiter, E.R. and Ben-Akiva, M. (1978), 'A System of Disaggregate Travel Demand Models: Structure, Component Models and Application Procedures,' *Transportation Research Record,* no.673, pp.121-128

13. Watanatada, T. and Ben-Akiva, M. (1978), 'Spatial Aggregation of Disaggregate Choice Models: An Areawide Urban Travel Demand Sketch Planning Model,' *Transportation Research Record,* no.673, pp. 93-99

14. Adler, T.J. and Ben-Akiva, M. (1979), 'A Theoretical and Empirical Model of Trip Chaining Behavior,' *Transportation Research B*, vol.13, no.3, pp. 143-157

15. Watanatada, T. and Ben-Akiva, M. (1979), 'Forecasting Urban Travel Demand for Quick Policy Analysis with Disaggregate Choice Models: A Monte Carlo Simulation Approach,' *Transportation Research Part AL Policy and Practice*, vol. 13A, no.4, pp. 241-248

16. Weisbrod, G.E., Lerman, S.R. and Ben-Akiva, M. (1980),'Tradeoffs in Residential Location Decisions: Transportation Versus Other Factors,' *Transport Policy and Decision Making*, vol.1, no.1, pp. 13-26

17. Ben-Akiva, M., Manski, C.F. and Sherman, L. (1981), 'A Behavioral Approach to Modelling Household Motor Vehicle Ownership and Applications to Aggregate Policy Analysis,' *Environment and Planning* A, vol.13, no.4, pp. 399-411

18. Chiang, Y.S., Roberts, P.O. and Ben-Akiva, M. (1981), 'Short-Run Freight-Demand Model: Joint Choice of Mode and Shipment Size,' *Transportation Research Record*, no.828, pp. 9-12

19. Ben-Akiva, M. and Litinas, N. (1982), 'Analytic Models of Trip Length Distributions,' *Transportation Research Record,* no.895, pp. 38-46

20. Litinas, N. and Ben-Akiva, M. (1982), 'Simplified Transportation Policy Analysis Using Continuous Distributions,' *Transportation Research A*, vol.16A, no.5-6, pp. 431-445

21. Salomon, I. and Ben-Akiva, M. (1982) 'Life Style Segmentation in Travel Demand Analysis,' *Transportation Research Record,* no.879, pp. 37-45

22. DePalma, A., Ben-Akiva, M., Lefevre, C. and Litinas, N. (1983), 'Stochastic Equilibrium Model of Peak Period Traffic Congestion,' *Transportation Science*, vol.17, no.4, pp. 430-453

23. Hocherman, I., Prashker, J. and Ben-Akiva, M. (1983), 'Estimation and Use of Dynamic Transaction Models of Automobile Ownership,' *Transportation Research Record,* no.944, pp. 134-141

24. Salomon, I. and Ben-Akiva, M. (1983) 'The Use of the Life Style Concept in Travel Demand Models,' *Environment and Planning A*, vol.15, no.5, pp. 623-638

25. Ben-Akiva, M., Cyna, M. and DePalma, A. (1984), 'Dynamic Model of Peak Period Congestion,' *Transportation Research B*, vol.18, no.4-5, pp. 339-355

26. Swait, J.D., Kozel, V.J., Barros, R.C. and Ben-Akiva, M. (1984), 'A Model System of Individual Travel Behavior for a Brazilian City,' *Transportation Policy and Decision Making*, vol. 2, no.4, pp. 1-30

27. Ben-Akiva, M., Hirsh, M. and Prashker, J. (1985), 'Probabilistic and Economic Factors in Highway Geometric Design: A Climbing Lane Example,' *Transportation Science*, vol.19, no.1, pp. 38-57

28. Ben-Akiva, M., Litinas, N. and Tsunokawa K., (1985), 'Continuous Spatial Choice: The Continuous Logit Model and Distributions of Trips and Urban Densities,' *Transportation Research A*, vol.19, no.2, pp. 119-154

29. Ben-Akiva, M., Macke, P.P. and Hsu, P.S., (1985), 'Alternative Methods to Estimate Route Level Trip Tables and Expand On-Board Surveys,' *Transportation Research Record,* no.1037, pp. 1-11

30. Gunn, H.F., Ben-Akiva, M. and Bradley, M.A. (1985), 'Tests of the Scaling Approach to Transferring Disaggregate Travel Demand Models,' *Transportation Research Record,* no.1037, pp. 21-30

31. Ben-Akiva, M. and DePalma, A. (1986), 'Analysis of a Dynamic Residential Location Choice Model with Transaction Costs,' *Journal of Regional Science*, vol.26, no.2, pp. 321-341

32. Ben-Akiva, M. and DePalma, A. (1986), 'Some Circumstances in Which Vehicles Will Reach Their Destinations Earlier by Starting Later: Revisited,' *Transportation Science*, vol.20, no.1, pp. 52-55

33. Ben-Akiva, M., DePalma, A. and Kanaroglou, P. (1986), 'Dynamic Model of Peak Period Traffic Congestion with Elastic Arrival Rates,' *Transportation Science*, vol.20, no.3, pp. 164-181

34. Ben-Akiva, M., DePalma, A. and Kanaroglou, P. (1986), 'Effects of Capacity Constraints on Peak Period Traffic Congestion,' *Transportation Research Record,* no.1085, pp. 16-26

35. Ben-Akiva, M. and Swait, J. (1986), 'The Akaike Likelihood Ratio Index', *Transportation Science*, vol.20, no.2, pp. 133-136

36. Hirsh, M., Prashker, J. and Ben-Akiva, M. (1986), 'Day of the Week Models of Shopping Activity Patterns,' *Transportation Research Record,* no.1085, pp. 63-69

37. Hirsh, M., Prashker, J. and Ben-Akiva, M. (1986), 'Dynamic Model of Weekly Activity Patterns,' *Transportation Science*, vol.20, no.1, pp. 24-36

38. Swait, J.D. and Ben-Akiva, M. (1986), 'Constraints to Individual Travel Behavior in a Brazilian City,' *Transportation Research Record,* no.1085, pp. 75-85

39. Ben-Akiva, M. and Bolduc, D. (1987), 'Approaches to Model Transferability and Updating: The Combined Transfer Estimator,' *Transportation Research Record*, no.1139, pp. 1-7

40. Ben-Akiva, M., DePalma, A. and Kanaroglou, P. (1987), 'Dynamic Network Equilibrium: Some Comments*,' European Journal of Operational Research*, vol.30, no.3, pp. 318-320

41. DePalma, A., Lefevre, C. and Ben-Akiva, M. (1987), 'A Dynamic Model of Peak Period Traffic Flows and Delays in a Corridor,' *Journal of Computers and Mathematics with Applications*, vol.14, no.3, pp. 201-223

42. Hirsh, M., Prashker, J. and Ben-Akiva, M. (1987), 'New Approach to Geometric Design of Highways,' *Transportation Research Record,* no.1100, pp. 50-57

43. Hocherman, I., Prashker, J. and Ben-Akiva, M. (1987), 'The Transaction Cost Approach to Modeling the Demand for Automobiles,' *Journal of Advanced Transportation*, vol.21, no.2, pp. 173-193

44. Swait, J.D. and Ben-Akiva, M. (1987), 'Empirical Test of a Constrained Choice Discrete Model: Mode Choice in Sao Paulo, Brazil,' *Transportation Research B*, vol.21B, no.2, pp. 103-115

45. Swait, J.D. and Ben-Akiva, M. (1987), 'Incorporating Random Constraints in Discrete Models of Choice Set Generation,' *Transportation Research B*, vol.21B, no.2, pp. 91-102

46. Train, K.E., McFadden, D. and Ben-Akiva, M. (1987), 'The Demand for Local Telephone Service: A Fully Discrete Model of Residential Calling Patterns and Service Choices', *RAND Journal of Economics*, vol.18, no.1, pp. 109-123

47. Ben-Akiva, M. and Morikawa, T. (1988), 'Data Combination and Updating Methods for Travel Surveys,' *Transportation Research Record*, no.1203, pp. 40-47

48. Antonisse, R.W., Daly, A. and Ben-Akiva, M. (1989), 'Highway Assignment Method Based on Behavioral Models of Car Drivers' Route Choice,' *Transportation Research Record*, no.1220, pp. 1-11

49. Ben-Akiva, M., DePalma, A. and Thisse, J.F. (1989), 'Spatial Competition with Differentiated Products,' *Regional Science and Urban Economics*, vol.19, no.1, pp. 5-19

36

50. Train, K.E., Ben-Akiva, M. and Atherton, T. (1989), 'Consumption Patterns and Self-Selecting Tariffs,' *The Review of Economics and Statistics*, vol. 71, no.1, pp. 62-73

51. Ben-Akiva, M. and Morikawa, T. (1990), 'Estimation of Switching Models from Revealed Preferences and Stated Intentions,' *Transportation Research A*, vol.24A, no.6, pp. 485-495

52. Ramaswamy, R. and Ben-Akiva, M. (1990), 'Estimation of Highway Pavement Deterioration from In-Service Pavement Data,' *Transportation Research Record*, no.1272, pp. 96-106

53. Ben-Akiva, M., DePalma, A. and Kaysi, I. (1991), 'Dynamic Network Models and Driver Information Systems,' *Transportation Research A*, vol.25A, no.5, pp. 251-266

54. Ben-Akiva, M., Humplick, F., Madanat, S. and Ramaswamy, R. (1991), 'Latent Performance Approach to Infrastructure Management,' *Transportation Research Record*, no.1311, pp. 188-195

55. Ben-Akiva, M., Morikawa, T. and Shiroishi, F. (1991), 'Analysis of the Reliability of Preference Ranking Data,' *Journal of Business Research*, vol.24, no.2, pp. 149-164

56. Morikawa, T., Ben-Akiva, M. and Yamada, K. (1991), 'Forecasting Intercity Rail Ridership Using Revealed Preference and Stated Preference Data,' *Transportation Research Record,* no.1328, pp. 30-35

57. Shocker, A., Ben-Akiva, M., Boccara, B. and Nedungadi, P. (1991), 'Consideration Set Influences on Consumer Decision-Making and Choice: Issues, Models, and Suggestions,' *Marketing Letters*, vol.2, no.3, pp. 181-197

58. Ben-Akiva, M., Bolduc, D. and Bradley, M. (1993), 'Estimation of Travel Choice Models with Randomly Distributed Values of Time,' *Transportation Research Record*, no.1413, pp. 88-97

59. Ben-Akiva, M., Humplick, F., Madanat, S. and Ramaswamy, R. (1993), 'Infrastructure Management under Uncertainty: Latent Performance Approach,' *Journal of Transportation Engineering*, vol.119, no.1, pp. 43-58

60. Ben-Akiva, M. and Ramaswamy, R. (1993), 'An Approach for Predicting Latent Infrastructure Facility Deterioration,' *Transportation Science*, vol.27, no.2, pp. 174-193

61. Bernardino, A., Ben-Akiva, M. and Salomon, I. (1993), 'A Stated Preference Approach to Modeling the Adoption of Telecommuting,' *Transportation Research Record,* no.1413, pp. 22-30

62. Kaysi, I., Ben-Akiva, M. and Koutsopoulos, H. (1993), 'An Integrated Approach to Vehicle Routing and Congestion Prediction for Real-Time Driver Guidance,' *Transportation Research Record*, no.1408, pp 66-74

63. Livneh, M. and Ben-Akiva, M. (1993), 'A Statistical Methodology to Analyze the Effect of Changes in Testing Technology on Measurement Results', *Geotechnical Testing Journal,* vol. 16, no. 2, pp. 216-227

64. Ben-Akiva, M., Bradley, M., Morikawa, T., Benjamin, J., Novak, T., Oppewal, H. and Rao, V. (1994), 'Combining Revealed and Stated Preferences Data,' *Marketing Letters,* vol.5, no.4, pp. 335-349

65. Ben-Akiva, M., Koutsopoulos, H. and Mukundan, A. (1994), 'A Dynamic Traffic Model System for ATMS/ATIS Operations,' *Journal of Intelligent Transportation Systems,* vol.2, no.1, pp.1-19

66. Madanat, S., Ben-Akiva M., (1994), 'Optimal Inspection and Repair Policies for Infrastructure Facilities,' *Transportation Science*, vol.28, no.1, pp. 55-61

67. Polydoropoulou, A., Ben-Akiva, M. and Kaysi, I. (1994), 'Influence of Traffic Information on Drivers' Route Choice Behavior,' *Transportation Research Record,* no.1453, pp. 56-65

68. Ben-Akiva, M. and Boccara, B. (1995), 'Discrete Choice Models with Latent Choice Sets,' *International Journal of Research in Marketing*, vol.12, pp. 9-24

69. Ben-Akiva, M., Bolduc, D. and Kalulumia, P. (1995), 'The Combined Estimator Approach to Model Transferability and Updating,' *Empirical Economics,* vol. 20, no.1, pp. 167-175

70. Ben-Akiva, M., Cascetta, E., Gunn, H. (1995). 'An On-Line Dynamic Traffic Prediction Model for an Inter-Urban Motorway Network'. In: Gartner, N.H., Improta, G. (eds) Urban Traffic Networks. Transportation Analysis. Springer, Berlin, Heidelberg, pp. 83-122. https://doi.org/10.1007/978-3-642-79641-8_4

71. Gopinath, D., Ben-Akiva, M. and Ramaswamy, R. (1995), 'Modeling Performance of Highway Pavements,' *Transportation Research Record*, no.1449, pp. 1-7

72. Kaysi, I., Ben-Akiva, M. and de Palma, A. (1995), 'Design Aspects of Advanced Traveler Information Systems,' *Urban Traffic Networks*, (eds.) Gartner and Improta, pp. 59-82

73. Koutsopoulos, H., Polydoropoulou, A. and Ben-Akiva, M. (1995), 'Travel Simulators for Data Collection in the Presence of Information,' *Transportation Research C*, vol.3, no.3, pp.143-159

74. Ben-Akiva, M., Benjamin, J., Lauprete, G. and Polydoropoulou, A. (1996), 'Impact of Advanced Public Transportation Systems on Travel by Dial-a-Ride,' *Transportation Research Record*, no.1557, pp. 72-79

75. Ben-Akiva, M., Cascetta, E., Gunn, H., Inaudi, D., and Whittaker, J. (1996). 'Dynamic Traffic Prediction for Motorway Networks'. In: Bianco, L., Toth, P. (eds) Advanced Methods in Transportation Analysis. Transportation Analysis. Springer, Berlin, Heidelberg, pp. 433-455. https://doi.org/10.1007/978-3-642-85256-5_20

76. Ben-Akiva, M., DePalma, A. and Kaysi, I. (1996), 'The Impact of Predictive Information on Guidance Efficiency: An Analytical Approach,' *Transportation Analysis: Advanced Methods in Transportation Analysis*, (eds.) Bianco, L. and Toth, P., Springer, pp.413-432

77. Ben-Akiva, M., Bowman, J.L. and Gopinath D. (1996), 'Travel Demand Model System for the Information Era,' *Transportation*, vol. 23, no.3, pp. 241-266

78. Bernardino, A. and Ben-Akiva, M. (1996), 'Modeling the Process of Adoption of Telecommuting: A Comprehensive Framework,' *Transportation Research Record,* no.1552, pp. 161-170

79. Khattak, A., Polydoropoulou, A. and Ben-Akiva, M. (1996), 'Modeling Revealed and Stated Pretrip Travel Response to Advanced Traveler Information Systems,' *Transportation Research Record*, no.1537, pp. 46-54

80. Polydoropoulou, A., Ben-Akiva, M., Khattak, A. and Lauprete, G. (1996), 'Modeling Revealed and Stated En-Route Travel Response to Advanced Traveler Information Systems,' *Transportation Research Record*, no.1537, pp. 38-45

81. Shyr, F.Y. and Ben-Akiva, M. (1996), 'Modeling Rail Fatigue Behavior with Multiple Hazards,' *Journal of Infrastructure Systems*, vol. 2, no.2, pp. 73-82

82. Walker, J.L. and Ben-Akiva, M. (1996), 'Consumer Response to Traveler Information Systems: Laboratory Simulation of Information Searches Using Multimedia Technology,' *ITS Journal*, vol.3, no.1, pp. 1-20

83. Ben-Akiva, M., Koutsopoulos, H., Mishalani, R. and Yang, Q. (1997), 'Simulation Laboratory for Evaluating Dynamic Traffic Management Systems*,' Journal of Transportation Engineering*, vol.123, no.4, pp. 283-289

84. Ben-Akiva, M., McFadden, D., Abe, M., Böckenholt, U., Bolduc, D., Gopinath, D., Marikina, T., Ramawwamy, V., Rao, V., Revelt, R. and Steinberg, D. (1997), 'Modeling Methods for Discrete Choice Analysis,' *Marketing Letters*, vol.8, no.3, pp. 273-286

85. Polydoropoulou, A., Ben-Akiva, M. and Gopinath, D. (1997), 'Willingness to Pay for ATIS: the SmarTraveler Case Study,' *Transportation Research Record,* no.1588, pp. 1-9

86. Ben-Akiva, M. and Bowman, J.L. (1998), 'Integration of an Activity-based Model System and a Residential Location Model,' *Urban Studies*, vol.35, no.7, pp. 1131-1153

87. Ben-Akiva, M. and Gershenfeld, S. (1998), 'Multi-Featured Products and Services: Analyzing Pricing and Bundling Strategies,' *Journal of Forecasting*, vol.17, no.3/4, pp. 175-196

88. Benjamin, J., Kurauchi, S., Morikawa, T., Polydoropoulou, A., Sasaki, K., and Ben-Akiva, M. (1998), 'Forecasting Paratransit Ridership Using Discrete Choice Models With Explicit Consideration of Availability,' *Transportation Research Record*., no.1618, pp. 60-65

89. Chen, O. and Ben-Akiva, M. (1998), 'Game-Theoretic Formulations of the Interaction between Dynamic Traffic Control and Dynamic Traffic Assignment,' *Transportation Research Record*, no.1617, pp. 179-188

90. Ben-Akiva, M., Benjamin, J., Kurauchi, S., Morikawa, T., and Polydoropoulou, A., (1999), Investigating the Effect of Advanced Public Transportation Systems (APTS) on Mode Choice Behavior, *Transportation Research Record*. 1618, pp. 60-65

91. Ben-Akiva, M., Cedar, A., Cheng, B. and Liss, C.M. (1999) 'A Methodology for Estimating Traffic Safety Improvements at Intersections,' *Journal of Advanced Transportation*, vol.33, no.3, pp. 273-293

92. Ben-Akiva, M., McFadden, D., Garling, T., Gopinath, D., Walker, J., Bolduc, D., Borsch-Supan, A., Delquie, P., Larichev, O., Morikowa, T., Polydoropoulou, A. and Rao, V. (1999), 'Extended Framework for Modeling Choice Behavior,' *Marketing Letters*, vol.10, no.3, pp. 187-203

93. Chen, O., Ben-Akiva, M., Chabini, I., and Gartner, N. (1999), The Combined Dynamic Traffic Control-Assignment Problems: Models, Solutions, Algorithms and Applications, *Transportation Science.* pp. 341-353

94. Jha, M., Cuneo, D. and Ben-Akiva, M. (1999), 'Evaluation of Freeway Lane Control for Incident Management,' *Journal of Transportation Engineering*, vol.125, no.6, pp. 95-501

95. Ashok, K. and Ben-Akiva, M. (2000), 'Alternative Approaches for Real-Time Estimation and Prediction of Time-Dependent Origin-Destination Flows,' *Transportation Science*, vol.34. no.1, pp. 21-36

96. Hasan, M., J ha, M., and Ben-Akiva, M. (2000), Evaluation of Ramp Control Algorithms Using MITSIM Microscopic Traffic Simulation Laboratory, *Transportation Research – Part C*. 10(3), pp. 229-256

97. Yang, Q., Koutsopoulos , H., Ben-Akiva,M. (2000), A Simulation Laboratory for Evaluating Dynamic Traffic Management Systems. *Transportation Research Record: Journal of the Transportation Research Board,* 1710, pp. 122 – 130

98. Ben-Akiva, M., Bierlaire, M., Burton, D., Koutsopoulos, H. and Mishalani, R. (2001), 'Network State Estimation and Prediction for Real-Time Transportation Management Applications;' *Networks and Spatial Economics*, vol.1, no.3/4, pp. 293-318

99. Ben-Akiva, M., Bottom, J. and Ramming, M.S. (2001), 'Route Guidance and Information Systems', *Journal of Systems and Control Engineering*, vol.215, no.4, pp. 317-324

100. Bowman, J.L. and Ben-Akiva, M. (2001), 'Activity-Based Disaggregate Travel Demand Model System with Activity Schedules,' *Transportation Research Part A*, vol.35, pp. 1-28

101. Polydoropoulou, A. and Ben-Akiva, M. (2001), 'Combined RP/SP Nested Logit Access/Mode Choice Model for Multiple Mass Transit Technologies,' *Transportation Research Record*, no.1771, pp. 38-45

102. Ashok, K., and Ben-Akiva, M., 2002. Estimation and Prediction of Time-Dependent Origin-Destination Flows with a Stochastic Mapping to Path Flows and Link Flows. *Transportation Science.* 36(2) pp. 184-198.

103. Ben-Akiva, M., McFadden, D., Train, K., Walker, J., Bhat, C., Bierlaire, M., Boersch-Supan, A., Brownstone, D., Bunch, D., Daly, A., DePalma, A., Gopinath, D., Karlstrom, A. and Munizaga, M. (2002), 'Hybrid Choice Models: Progress and Challenges,' *Marketing Letters*, vol.13, no.3, pp. 163-175

104. Ben-Akiva, M. and Morikawa, T. (2002), 'Comparing Ridership Attraction of Rail and Bus,' *Transport Policy*, vol.9, no.2, pp. 107-116

105. Hasan, M., Jha, M. and Ben-Akiva, M. (2002), 'Evaluation of Ramp Control Algorithms using Microscopic Traffic Simulation,' *Transportation Research Part C*, vol.10, pp. 229-256

106. Morikawa, T., Ben-Akiva, M. and McFadden, D. (2002), 'Discrete Choice Models Incorporating Revealed Preferences and Psychometric Data', *Econometric Models in Marketing*, vol.16, pp. 29-55

107. Shiftan, Y., Ben-Akiva, M., De Jong, G., Hakkert, S. and Simmonds, D. (2002), 'Evaluation of Externalities in Transport Projects,' *European Journal of Transport and Infrastructure Research*, vol.2, no.3/4, pp. 285-304

108. Walker, J. and Ben-Akiva, M. (2002), 'Generalized Random Utility Model,' *Mathematical Social Sciences*, vol.43, no.3, pp. 303-343

109. Ben-Akiva, M., Cuneo, D., Hasan, M., Jha, M. and Yang, Q. (2003), 'Evaluation of freeway control using a microscopic simulation laboratory,' *Transportation Research Part C: Emerging Technologies*, vol.11, no.1, pp. 29-50

110. Toledo, T., Koutsopoulos, H. and Ben-Akiva, M. (2003), 'Modeling Integrated Lane-Changing Behavior,' *Transportation Research Record*, no.1857, pp. 30-38

111. Toledo, T., Koutsopoulos, H., Davol, A., Ben-Akiva, M., Burghout, W.I., Andreasson, I., Johansson, T. and Lundin, C. (2003), 'Calibration and Validation of Microscopic Traffic Simulation Tools: Stockholm Case Study', *Transportation Research Record*, no.1831, pp. 65-75

112. Antoniou, C., Ben-Akiva, M. and Koutsopoulos, H. (2004), 'Incorporating Automated Vehicle Identification Data info Origin-Destination Estimation,' *Transportation Research Record*, no.1882, pp. 37-44

113. De Jong, G., Gunn, H.F. and Ben-Akiva, M. (2004), 'A meta-model for passenger and freight transport in Europe', *Transport Policy,* vol.11, no.4, pp. 329-344

114. Jamin, S., Schafer, A., Ben-Akiva, M. and Waitz, I.A. (2004), 'Aviation Emissions and Abatement Policies in the United States: A City-Pair Analysis,' *Transportation Research Part D: Transport and Environment*, vol.9, no.4, pp. 295-317

115. Jha, M., Gopalan, G., Garms, A., Mahanti, B.P., Toledo, T. and Ben-Akiva, M. (2004), 'Development and Calibration of a Large Scale Microscopic Simulation Model', *Transportation Research Record*, no.1876, pp. 121-131

116. Toldeo, T., Ben-Akiva, M., Darda, D., Jha, M. and Koutsopoulos, H. (2004), 'Calibration of Microscopic Traffic Simulation Models of Aggregate Data', *Transportation Research Record*, no.1876, pp.10-19

117. Balakrishna, R., Koutsopoulos, H., Ben-Akiva, M., Fernandez Ruiz, B.M. and Mehta, M. (2005), 'Simulation Based Evaluation of Advanced Traveler Information Systems,' *Transportation Research Record*, no.1910, pp. 90-98

118. Toledo, T., Choudhury, C., and Ben-Akiva, M. (2005), A Lane-changing Model With Explicit Target Lane Choice*, Transportation Research Record* 1934, pp. 157-165

119. Bekhor, S., Ben-Akiva, M. and Ramming, M.S. (2006), 'Evaluation of Choice Set Generation Algorithms for Route Choice Models,' *Annals of Operation Research,* vol.144, no.1, pp. 235-247

120. Dong, X., Ben-Akiva, M., Bowman , J.L. and Walker, J. (2006), 'Moving From Trip-Based to Activity-Based Measures of Accessibility', *Transportation Research A*, vol.40, no.2, pp. 163-180

121. Guevara, C.A. and Ben-Akiva, M. (2006), 'Endogneity in Residential Location Choice Models,' *Transportation Research Record*, no.1977, pp. 60-66

122. Theis G., Adler, T., Clarke, J.P. and Ben-Akiva, M. (2006), 'Risk Aversion to Short Connections in Airline Itinerary Choice,' *Transportation Research Record*, no. 1951, pp.28-36.

123. Balakrishna, R., Antoniou, C., Ben-Akiva, M., Koutsopoulos, H.N. and Wen, Y. (2007), 'Calibration of Microscopic Traffic Simulation Models: Methods and Application', *Transportation Research Record*, no.1999, pp.198-207

124. Balakrishna, R., Ben-Akiva, M. and Koutsopoulos, H.N. (2007), 'Off-line Calibration of Dynamic Traffic Assignment: Simultaneous Demand-Supply Estimation.' *Transportation Research Record*, no.2003, pp. 50-58

125. Ben-Akiva, M., Bottom, J., Gao, S., Koutsopoulos, H. and Wen, Y. (2007), 'Towards Disaggregate Dynamic Travel Forecasting Models,' *Tsinghua Science and Technology*, vol.12, no.2, pp. 115-130

126. De Jong, G. and Ben-Akiva, M. (2007) 'A micro-simulation model of shipment size and transport chain choice', *Transportation Research Part B*, vol.31, no.9 pp. 950-965

127. Toledo, T., Koutsopoulos, H. and Ben-Akiva, M. (2007), 'Integrated driving behavior modeling', *Transportation Research Part C: Emerging Technologies*, vol.15, no.3, pp. 96-112

128. Walker, J., Ben-Akiva, M. and Bolduc, D. (2007), 'Identification of Parameters in Normal Error Component Logit-Mixture (NECLM) Models', *Journal of Applied Econometrics,* vol. 22, no. 6, pp. 1095-1125

129. Abou Zeid, M., Ben-Akiva, M., Tierney, T., Buckeye, K. and Buxbaum, J. (2008) 'Minnesota pay-as-you-drive pricing experiment', *Transportation Research Record,* no. 2079, pp. 8–14

130. Balakrishna, R., Wen, Y., Ben-Akiva, M. and Antoniou, C., (2008), 'Simulation-Based Framework for Transportation Network Management for Emergencies', *Transportation Research Record*, no. 2041, pp. 80-88

131. Choudhury, C. and Ben-Akiva, M. (2008), 'Lane selection model for urban intersections', *Transportation Research Record*, no. 2088, pp. 167-176

132. Gao, S., Frejinger, E. and Ben-Akiva, M. (2008) 'Adaptive Route Choice Models in Stochastic Time-Dependent Networks', *Transportation Research Record*, no.2085, pp. 136-143

133. De Palma, A., Ben-Akiva, M., Brownstone, D., Holt, C., Magnac, T., McFadden, D., Moffat, P., Picard, N., Train, K., Wakker, P. and Walker, J. (2008), 'Risk, uncertainty and discrete choice models', *Marketing Letters*, vol.19, no.3-4, pp. 269-285

134. Popuri, Y. and Ben-Akiva, M.(2008) 'Time of day modeling in a tour-based context: the Tel-Aviv experience', *Transportation Research Record*: *Journal of the Transportation Research Board,* no. 2076, pp.88-96

135. Vaze, V., Antoniou, C., Wen, Yang., Ben-Akiva, M. (2009), 'Calibration of dynamic traffic assignment models with point-to-point surveillance', *Transportation Research Record 2090,* pp.1-9

136. Frejinger, E.., Bierlaire, M., and Ben-Akiva, M., (2009) , 'Sampling of alternatives for route choice modeling', *Transportation Research Part B: Methodological,* Vol.43, Issue 10, pp.984-994

137. Toledo, T., Koutsopolous, H., Ben-Akiva, M., (2009), 'Estimation of an integrated driving behavior model', *Transportation research Part C: Emerging Technologies*, Vol.17, Issue 4, pp.365-380

138. Chorus, C., Walker, J., and Ben-Akiva, M., (2010), 'The Value of Travel Information: A Search-Theoretic Approach', *Journal of Intelligent Transportation Systems,* Vol. 14, Issue 3, pp. 154-165

139. Choudhury, C., Ben-Akiva, M., and Abou-Zeid, M., (2010), 'Dynamic Latent Plan Models', *Journal of Choice Modelling,* Vol. 3, Issue 2, pp. 50-70

140. Gao, S., Frejinger, El, and Ben-Akiva, M., (2010), 'Adaptive route choices in risky traffic networks; a prospect theory approach', *Transportation Research Part C: Emerging Technologies,* Vol. 18, Issue 5, pp. 727-740

141. Abou-Zeid, M., and Ben-Akiva, M., (2011), 'The effect of social comparisons on commute well-being', *Transportation Research Part A: Policy and Practice,* Vol. 45, Issue 4, pp. 345-361

142. Antoniou, C., Balakrishna, R., Koutsopoulos, H., and Ben-Akiva, M. (2011), Calibration methods for simulation-based dynamic traffic assignment systems, *International Journal of Modeling and Simulation*, Vol. 31, No. 3, pp. 227-233

143. Antoniou, C., Koutsopoulos, H., Ben-Akiva, M., and Chauhan, A., (2011), 'Evaluation of Diversion Strategies Using Dynamic Traffic Assignment', *Transportation Planning and Technology Journal*, Vol. 34, Issue 3, pp. 199-216

144. Balakrishna, R., Antoniou, C., Koutsopoulos, H., Wen, Y., and Ben-Akiva, M. (2011), 'Calibrating speed-density functions for mesoscopic traffic simulation', *Transportation Research E – Circular*, pp. 199-209

145. Choudhury, C, and Ben-Akiva, M. (2011), 'Modelling driving decisions: a latent plan approach', *Transportmetrica*, Vol. 9, Issue 6, pp. 546-566

146. Gao, S., Frejinger, E., and Ben-Akiva, M. (2011), 'Cognitive cost in route choice with real-time information: an exploratory analysis', *Transportation Research Part A: Policy and Practice*, Vol. 45, Issue 9, pp. 916-926

147. Kurosawa, T., Bolduc, D., Ben-Akiva, M., Inoue, A., Nishimatsu, K., and Iwashita, M. (2011), 'Demand analysis by modeling choice of internet access and IP telephony', *International Journal of Information Systems in the Service Sector*, Vol. 3, Issue 3, pp. 1-26

148. Kurosawa, T., Nishimatsu, K., Iwashita, M., Inoue, A., Ben-Akiva, M., and Bolduc, D. (2011), 'Service-choice behavior modeling constructed with multiple decision-making processes', *International Journal of Services, Economics, and Management*, Vol. 3, No. 3, pp. 301-311

149. Shiftan, Y., and Ben-Akiva, M. (2011), 'A Practical Policy-Sensitive, Activity-Based, Travel-Demand Model', *Annals of Regional Science*, Vol. 47, No. 3, pp. 517-541

150. Sundaraman, S., Koutsopoulos, H., Ben-Akiva, M., Antoniou, C., and Balakrishna, R. (2011), 'Simulation-based dynamic traffic assignment for short-term planning applications', *Simulation Modelling Practice and Theory*, Vol. 19, Issue 1, pp. 450-462

151. Abou-Zeid, M., and Ben-Akiva, M. (2012), 'Travel mode switching: Comparison of findings from two public transportation experiments', *Transport Policy,* Vol. 24, pp. 48-59

152. Abou-Zeid, M., and Ben-Akiva, M. (2012), 'Well-being and activity-based models', *Transportation,* Vol. 39, Issue 6, pp. 1189-1207

153. Abou-Zeid, M., Witter, R., Bierlaire, M., Kaufmann, V., and Ben-Akiva, M. (2012), 'Happiness and travel mode switching: Findings from a Swiss public transport experiment', *Transport Policy,* Vol. 19, pp. 93-104

154. Ben-Akiva, M., de Palma, A., McFadden, D., Abou-Zeid, M., Chiappori, P., de Lapparent, M., Durlauf, S., Fosgerau, M., Fukuda, D., Hess, S., Manski, C., Pakes, A., Picard, N., and Walker, J. (2012), 'Process and context in choice models', *Marketing Letters,* Vol. 23, Issue 2, pp. 439-456

155. Ben-Akiva, M., Gao, S., Wei, Z. and Wen, Y. (2012), 'A dynamic traffic assignment model for highly congested urban networks', *Transport Research Part C: Emerging Technologies,* Vol. 24, pp. 62-82

156. Dray, L., Schäfer, A., and Ben-Akiva, M. (2012), 'Technology limits for reducing EU transport sector CO2 Emissions', *Environmental Science & Technology*, Vol. 46, pp. 4734-4741

157. Guevara, C.A., and Ben-Akiva, M. (2012), 'Change of scale and forecasting with the control-function method in logit models', *Transportation Science,* Vol. 46, No. 3, pp. 425-437

158. Ben-Akiva, M. and Abou-Zeid, M. (2013), 'Methodological issues in modeling time-of-travel preferences' *Transportmetrica,* Vol. 9, Issue 9, pp. 846-859

159. Chorus, C., Walker, J. and Ben-Akiva, M. (2013), 'A joint model of travel information acquisition and response to received messages', *Transportation Research Part C*, Vol. 26, pp. 61-77

160. Cottrill, C., Pereira, F., Zhao, F., Dias, I., Lim, H.B., Ben-Akiva, M. and Zegras, C. (2013), 'Future mobility survey: experience in developing a smartphone-based travel survey in Singapore', *Transportation Research Record*, Vol. 2354, pp. 59-67

161. de Jong, G., Vierth, I., Tavasszy, L., and Ben-Akiva, M. (2013), 'Recent developments in national and international freight transport models with Europe', *Transportation,* Vol. 40, pp. 347-371

162.   Guevara, C.A. and Ben-Akiva, M. (2013), 'Sampling of alternatives in Logit Mixture models', *Transportation Research Part B: Methodologica*, Vol. 58, pp. 185-198

163.   Guevara, C.A. and Ben-Akiva, M. (2013), 'Sampling of alternatives in Multivariate Extreme Value (MEV) models', *Transportation Research Part B*: *Methodological*, Vol. 48, pp. 31-52

164.   Pereira, F., Rodrigues, F. and Ben-Akiva, M. (2013), 'Text analysis in incident duration prediction', *Transportation Research Part C: Emerging Technologies*, Vol. 37, pp. 177-192

165.   Sun, Y., Toledo, T., Rosa, K., Ben-Akiva, M., Flanagan, K., Sanchez, R. and Spissu, E. (2013), 'Route choice characteristics for truckers', *Transportation Research Record*, Vol. 2354, pp. 115-121

166.   de Lapparent, M. and Ben-Akiva, M. (2014), 'Risk Aversion in Travel Mode Choice with Rank-Dependent Utility', *Mathematical Population Studies*, Vol. 21(4), pp. 189-204

167.   de Palma, A., Abellaoui, M., Attanasi, G., Ben-Akiva, M., Erev, I., Fehr-Duda, H., Fok, D., Fox, C. R., Hertwig, R., Picard, N., Wakker, P. P., Walker, J. L., and Weber, M. (2014), "Beware of black swans: Taking stock of the description-experience gap in decision under uncertainty", *Marketing Letters*, Vol. 25(3), pp. 269-280

168.   Kamargianni, M., Ben-Akiva, M. and Polydoropoulou, A. (2014), "Integrating Social Interaction into Hybrid Choice Models", *Transportation*, Vol. 41(6), pp. 1263-1285

169.   Pereira, F. C, Antoniou, C., Fargas, J. and Ben-Akiva, M. (2014), "A meta-model for estimating error bounds in real-time traffic prediction systems", *IEEE Transactions on Intelligent Transport Systems*, Vol. 15(3), pp. 1310-1322

170.   Pereira, F. C, Bazzan, A. and Ben-Akiva, M. (2014), "The role of context in transport prediction", *IEEE Intelligent Systems Magazine*, Vol. 29(1), pp. 76-80

171.   Antoniou, C., Azevedo, C., Lu, L., Pereira, F., and Ben-Akiva, M. (2015), "W-SPSA in practice: Approximation of weight matrices and calibration of traffic simulation models." *Transportation Research Part C: Emerging Technologies,* Vol. 59, pp. 129-146

172.   Atasoy, B., Ikeda, T., Song, X., and Ben-Akiva, M. (2015), 'The concept and impact analysis of a flexible mobility on demand system', *Transportation Research Part C: Emerging Technologies,* Vol. 56, pp. 373-392

173. Atasoy, B., Ikeda, T., and Ben-Akiva, M. (2015), 'Optimizing a flexible mobility on demand system', *Transportation Research Record,* Vol. 2536, pp. 76-85

174. Azevedo, C., Ciuffo, B., Cardoso, J., and Ben-Akiva, M. (2015), 'Dealing with uncertainty in detailed calibration of traffic simulation models for safety assessment', *Transportation Research Part C: Emerging Technologies,* Vol. 58, pp. 395-412

175. Ben-Akiva, M., Gao, S., Lu, L. and Wen, Y. (2015), "Combining Disaggregate Route Choice Estimation with Aggregate Calibration of a Dynamic Traffic Assignment Model", *Networks and Spatial Economics*, Vol. 15, pp. 559-581

176. Carrion, C., Enam, A., Pattabhiraman, V., Abou-Zeid, M., and Ben-Akiva, M. (2015), 'Activity Pattern Models with Well-Being Indicators', *Transportation Research Record,* No. 2493, pp. 58-69

177. Gioia, C., Ben-Akiva, M., Kirkegaard, M., Ole, J., Kasper, J., and Schum, D. (2015), 'Case factors affecting hearing aid recommendations by hearing care professionals', *Journal of the American Academy of Audiology,* Vol. 26(3), pp. 1-18

178. Li, R., Pereira, F., and Ben-Akiva, M. (2015), 'Competing risk mixture model and text analysis for sequential incident duration prediction', *Transportation Research Part C: Emerging Technologies,* Vol. 54, pp. 74-85

179. Li, R., Pereira, F., and Ben-Akiva, M. (2015), 'Competing risks mixture model for traffic incident duration prediction', *Accident Analysis & Prevention,* Vol. 75, pp. 192-201

180. Lu, L., Xu, Y., Antoniou, C., and Ben-Akiva, M. (2015), 'An enhanced SPSA algorithm for the calibration of Dynamic Traffic Assignment models', *Transportation Research Part C: Emerging Technologies ,* Vol. 51, pp. 149-166

181. Pereira, F., Rodrigues, F. and Ben-Akiva, M. (2015), 'Using data from the web to predict public transport arrivals under special events scenarios', *Journal of Intelligent Transportation Systems*, Vol. 19, No. 3, pp. 273-28

182. Pereira, F., Rodrigues, F., Polisciuc, E., and Ben-Akiva, M. (2015), 'Why so many people? Explaining nonhabitual transport overcrowding with internet data', *IEEE Transactions on Intelligent Transportation Systems,* Vol. 16, No. 3, pp. 1370-1379

183. Zhao, F., Pereira, F. C., Ball, R., Kim, Y., Han, Y., Zegras, C., and Ben-Akiva, M., (2015). "Exploratory analysis of a smartphone-based travel survey in Singapore," *Transportation Research Record (TRR): Journal of the Transportation Research Board*, Vol 2494, pp. 45-56

184. Ben-Akiva, M., Toledo, T., Santos, J., Cox, N., Zhao, F., Lee, Y., and Marzano, V. (2016), 'Freight data collection using GPS and web-based surveys: Insights from US truck drivers' survey and perspectives for urban freight', *Case Studies on Transport Polic*y, Vol. 4, No. 1, pp. 38-44

185. Carrion, C., Enam, A., Pattabhiraman, V., Abou-Zeid, M. and Ben-Akiva, M. (2016), 'Activity Pattern Models with Well-Being Indicators', *Transportation Research Record*, No. 2493, pp. 58-69

186. Guevara, C.A., Chorus, C., and Ben-Akiva, M. (2016), 'Sampling of Alternatives in Random Regret Minimization Models', *Transportation Science*, Vol. 50, pp. 306-321

187. Lima Azevedo, C., Marczuk, K., Raveau, S., Adnan, M., Basak, K., Loganathan, H., Deshmunkh, N., Lee, D.H., Frazzoli, E., and Ben-Akiva, M. (2016), 'Microsimulation of Demand and Supply of Autonomous Mobility On-Demand', *Transportation Research Record,* No. 2564, pp. 21-30

188. Lovric, M., Raveau, S., Adnan, M., Pereira, F., Basak, K., Loganathan, H., and Ben-Akiva, M. (2016), 'Evaluating Off-Peak Pricing Strategies in Public Transportation Using an Activity-Based Approach', *Transportation Research Record*, No. 2544, pp. 10-19

189. Raveau, S., Ghorpade, A., Zhao, F., Abou-Zeid, M., Zegras, C., and Ben-Akiva, M. (2016), 'Smartphone-Based Survey for Real-Time and Retrospective Happiness Related to Travel and Activities', *Transportation Research Record*, No. 2566, pp. 102-110

190. Azevedo, C., Deshmukh, N., Marimuthu, B., Oh, S., Marczuk, K., Soh, H. Basak, K., Toledo, T., Peh, L., and Ben-Akiva, M. (2017), "SimMobility Short-Term: An Integrated Microscopic Mobility Simulator", *Transportation Research Record*, Vol. 2622, pp. 13-23

191. Choudhury, C., Yang, L., Silva, J., and Ben-Akiva, M. (2017), "Modelling Preference for Smart Modes and Services: A Case Study in Lisbon", *Transportation Research Part A: Policy and Practice*, DOI 10.1016/j.tra.2017.07.005

192. Li, C., Zegras, C., Zhao, F., Qin, Z., Shahid, A., Ben-Akiva, M., Pereira, F., and Zhao, J. (2017), "Enabling Bus Transit Service Quality Co-Monitoring Through a Smartphone Based Platform", *Transportation Research Record*, Vol. 2649, pp. 42-51

193. Prakash, A., Seshadri, R., Antoniou, C., Pereira, F., and Ben-Akiva, M. (2017), "Reducing the Dimension of Online Calibration in Dynamic Traffic Assignment Systems", *Transportation Research Record*, Vol. 2667, pp. 96-107

194. Walker, J., Wang, Y., Thorhauge, M., and Ben-Akiva, M. (2017), "D-efficient or deficient? A robustness analysis of stated choice experimental design", *Theory and Decision*, DOI 10.1007/s11238-017-9647-3

195. Zhang, H., Seshadri, R., Prakash, A., Pereira, F., Antoniou, C., and Ben-Akiva, M. (2017), "Improved Calibration Method for Dynamic Traffic Assignment Models: Constrained Extended Kalman Filter", *Transportation Research Record*, Vol. 2667, pp. 142-153

196. Basu, R., Araldo, A., Prakash, A., Nahmias-Biran, B., Bakak, K., Seshadri, R., Deshmukh, N., Kumar, N., Azevedo, C. and Ben-Akiva, M. (2018). Automated Mobility-on-Demand vs. Mass Transit: A Multi-Modal Activity-Driven Agent-Based Simulation Approach. *Transportation Research Record*, Vol. 2672, Issue 8, pp. 608-618

197. Becker, F., Danaf, M., Song, X., Atasoy, B., and Ben-Akiva, M. (2018). Bayesian Estimator for Logit Mixtures with Inter- and Intra-Consumer Heterogeneity. *Transportation Research Part B: Methodological*, Vol. 117, pp. 1-17

198. dePalma, A., Proost, S., Seshadri, R. and Ben-Akiva, M. (2018). Congestion Tolling – Dollars versus Tokens: A Comparative Analysis. *Transportation Research Part B: Methodological*, Vol. 108, pp. 261-280

199. He, H., Atasoy, B., Brazier, J., Zegras, C., and Ben-Akiva, M. (2018).Alternative Activity Pattern Generation for Stated Preference Surveys", *Transportation Research Record*, Vol. 2672, Issue 47, pp. 135-145

200. Nahmias-Biran, B., Han, Y., Bekhor, S., Zhao, F., Zegras, C., and Ben-Akiva, M. (2018). Enriching Activity-based Models using Smartphone-based Travel Surveys. *Transportation Research Record*, Vol. 2674(42), pp. 280-281

201. Prakash, A., Seshadri, R., Antoniou, C., Pereira, F., and Ben-Akiva, M. (2018). Improving Scalability of Generic Online Calibration for Real-Time Dynamic Traffic Assignment Systems. *Transportation Research Record*, Vol 2672, Issue 48, pp. 79-92

202. Sakai, T., Bhavathrathan, B., Alho, A., Hyodo, T., and Ben-Akiva, M. (2018). Commodity flow estimation for a metropolitan scale freight modeling system: supplier selection considering distribution channel using an error component logit mixture model. *Transportation*, DOI 10.1007/s11116-018-9932-1

203. Song, X., Danaf, M., Atasoy, B., and Ben-Akiva, M. (2018). Personalized Menu Optimization with Preference Updater: A Boston Case Study. *Transportation Research Record*, Vol. 2672, pp. 599-607

204. Viegas de Lima, I., Danaf, M., Akkinepally, A., Azevedo, C., and Ben-Akiva, M. (2018). Modeling Framework and Implementation of Activity- and Agent-based Simulation: An Application to the Greater Boston Area. *Transportation Research Record*, Vol. 2672(49), pp. 146-157

205. Alho, A., R., Sakai, T., Chua, M.H., Jeong, K., Jing, P. & Ben-Akiva, M. (2019). Exploring Algorithms for Revealing Freight Vehicle Tours, Tour-Types, and Tour-Chain-Types from GPS Vehicle Traces and Stop Activity Data. *Journal of Big Data Analytics in Transportation.* 1, pp. 175-190.

206. Araldo, A., Gao, S., Seshadri, R., Azevedo, C.L., Ghafourian, H., Sui, Y., Ayaz, S., Sukhin, D. and Ben-Akiva, M. (2019). System-Level Optimization of Multi-Modal Transportation Networks for Energy Efficiency using Personalized Incentives: Formulation, Implementation and Performance. *Transportation Research Record*. Vol. 2673(12), pp. 425-438

207. Danaf, M., Atasoy, B., Lima de Azevedo, C., Ding-Mastera, J., Abou-Zeid, M., Cox., N., Zhao, F., and Ben-Akiva, M. (2019). Context-aware stated preferences surveys with smartphone-based travel surveys. *Journal of Choice Modeling*. Vol. 31, pp. 35-50

208. Danaf, M., Becker, F., Song, X., Atasoy, B., and Ben-Akiva, M. (2019). Online Discrete Choice Models: Applications in Personalized Recommendations. *Decision Support Systems*, Vol. 119, pp. 35-45.

209. Ding-Mastera, J., Gao, S., Jenelius, E., Rahmani, M., and Ben-Akiva, M. (2019). A latent-class adaptive routing choice model in stochastic time-dependent networks. *Transportation Research Part B: Methodological*. Vol. 124, pp. 1-17

210. Nahmias-Biran, B., Oke, J., Kumar, N., Basak, K., Araldo, A., Seshadri, R., Akkinepally, A., Lima Azevedo, C. and Ben-Akiva, M. (2019). From Traditional to Automated Mobility on Demand: A Comprehensive Framework for Modeling On-Demand Services in SimMobility. *Transportation Research Record*, Vol. 2673(12), pp. 15-29

211. Oh, S., Seshadri, R., Azevedo, C. L., & Ben-Akiva, M. E. (2019). Demand Calibration of Multimodal Microscopic Traffic Simulation using Weighted Discrete SPSA. *Transportation Research Record.* Vol. 2673 (5), pp. 503-514

212. Oke, J., Aboutaleb, Y., Akkinepally, A., Azevedo, C., Han, Y., Zegras, Y., Ferreira, J., and Ben-Akiva, M. (2019). A novel global urban typology framework for sustainable mobility futures. *Environmental Research Letters*. Vol 14, No. 9, https://doi.org/10.1088/1748-9326/ab22c7

213. Xie, Y., Danaf, M., Lima Azevedo, C., Prakash, A., Atasoy, B., Jeong, K., Seshadri, R., and Ben-Akiva, M. (2019). Behavioral Modeling of On-demand

Mobility Services: General Framework and Application to Sustainable Travel Incentives. *Transportation*, Vol. 46(6), pp. 2017-2039

214.   You, L., Zhao, F., Cheah, L., Jeong, K., Zegras, P. C., & Ben-Akiva, M. (2019). A Generic Future Mobility Sensing System for Travel Data Collection, Management, Fusion, and Visualization. *IEEE Transactions on Intelligent Transportation Systems*, 1-12. https://doi.org/10.1109/TITS.2019.2938828

215.   Zhang, Y., Atasoy, B., Akkinepally, A., & Ben-Akiva, M. (2019). Dynamic Toll Pricing using Dynamic Traffic Assignment System with Online Calibration. *Transportation Research Record*. Vol 2673(10), pp 532-546.

216.   Aboutaleb, Y. M., M. Danaf, Y. Xie, and Ben-Akiva, M. (2020). Sparse covariance estimation in logit mixture models. Accepted to *The Econometrics Journal*.

217.   Adnan, M., Nahmias-Biran, B., Baburajan, V., Basak, K., & Ben-Akiva, M. (2020). Examining impacts of time-based pricing strategies in public transportation: A study of Singapore. *Transportation Research Part A: Policy and Practice*, Vol. 140, pp. 127-141.

218.   Chen, S., Prakash, A., Azevedo, C., and Ben-Akiva, M. Formulation and solution approach for calibrating activity-based travel demand model systems via microsimulation. *Transportation Research Part C: Emerging Technologies, Vol. 119, 102650*

219.   Dalla Chiara, G., Alho, A., Cheng, C., Ben-Akiva, M., and Cheah, L. (2020). Exploring Benefits of Cargo-cycles versus Trucks for Urban Parcel Delivery under Different Demand Scenarios. *Transportation Research Record*. Vol. 2674(5), pp. 553-562.

220.   Dalla Chiara, G., Cheah, L., Azevedo, C., and Ben-Akiva, M. (2020) A policy-sensitive model of parking choice for commercial vehicles in urban areas. *Transportation Science*. Vol. 54, No. 3, pp. 606-630

221.   Danaf, M., Atasoy, B., and Ben-Akiva, M. (2020). Logit mixture with inter and intra-consumer heterogeneity and flexible mining distributions. *Journal of Choice Modelling*. Vol. 35, 100188, https://doi.org/10.1016/j.jocm.2019.100188

222.   Danaf, M., Guevara, A., Atasoy, B., and Ben-Akiva, M. (2020). Endogeneity in adaptive choice contexts: Choice-based recommender systems and adaptive stated preferences surveys. *Journal of Choice Modelling*. Vol. 34, 100200, https://doi.org/10.1016/j.jocm.2019.100200

223. Gopalakrishnan, R., Alho, A., Sakai, T., Hara, Y., Cheah, L. and Ben-Akiva, M. (2020). Assessing Overnight Parking Infrastructure Policies for Commercial Vehicles in Cities Using Agent-based Simulation. *Sustainability*. 12(7), 2673.

224. Gopalakrishnan, R., Guevara, C.A., and Ben-Akiva, M. (2020). Combining multiple imputation and control function methods to deal with missing data and endogeneity in discrete-choice models. *Transportation Research Part B: Methodological.* Vol. 142, pp. 45-57.

225. Lentzakis, A., Seshadri, R., Akkinepally, A., Vu, V., and Ben-Akiva, M. (2020). Hierarchical density-based clustering methods for tolling zone definition and their impact on distance-based toll optimization. *Transportation Research Part C: Emerging Technologies.* Vol. 118, 102685.

226. Nahmias-Biran, B.H., Oke, J., Kumar, C. L. Azevedo, M. Ben-Akiva. (2020) Evaluating the impacts of shared automated mobility on-demand: an activity-based accessibility approach, *Transportation*. DOI: 10.1007/s11116-020-10106-y

227. Oh, S., Seshadri, R., Trinh, D., Zegras, C. and M. Ben-Akiva (2020) Evaluating automated demand responsive transit using microsimulation. IEEE Access. Vol. 8, pp. 82551-82561.

228. Oh., S., Seshadri, R., Azevedo, C., Kumar, N., Basak, K., and Ben-Akiva, M. (2020). Assessing the impacts of automated mobility-on-demand through agent-based simulation: A Study of Singapore. Transportation Research Part A: Policy and Practice. Vol. 138, pp. 367-388.

229. Oke, J., Akkinepally, A., Chen, S., Xie, Y., Aboutaleb, Y., Azevedo, A., Zegras, C. Ferreira, J., and Ben-Akiva, M. (2020). Evaluating the systemic effects of automated mobility-on-demand services via large-scale agent-based simulation of auto-dependent prototype cities. Transportation Research Part A: Policy and Practice. Vol. 140, pp. 98-126.

230. Petrik, O., Adnan, M., Basak, K., and Ben-Akiva, M. (2020). Uncertainty analysis of an activity-based microsimulation model for Singapore. *Future generation computer systems.* Vol. 110, pp. 350-363

231. Sakai, T., Alho, A., Bhavathrathan, B.K., Dalla Chiara, G., Gopalakrishnan, R., Jing, P., Hara, Y., Hyodo, T., Cheah, L., Cheng, C., Zhao, F., and Ben-Akiva, M. (2020). SimMobility Freight: An Agent-Based Urban Freight Simulator for Evaluating Logistics Solutions. Transportation Research Part E: Logistics and Transportation Review. Vol. 141, 102017.

232. Sakai, T., Alho, A., Hyodo, T., and Ben-Akiva, M. (2020). An Empirical Shipment Size Model for Urban Freight and Its Implications". Transportation Research Record. Vol. 2674(5), pp. 12-21.

233. Sakai, T., Bhavathrathan, B.K., Alho, A., Hyodo, T., and Ben-Akiva, M. (2020). Commodity flow estimation for a metropolitan scale freight modeling system: supplier selection considering distribution channel using an error component logit mixture model. Transportation, Vol. 47(2), pp. 997-1025.

234. Seshadri, R., Gupta, S., Atasoy, B., Akkinepally, A., Pereira, F., Tan, G., and Ben-Akiva, M. (2020). Real-Time Predictive Control Strategy Optimization. Transportation Research Record. Vol. 2674(3), pp. 1-11.

235. Toledo, T., Atasoy, B., Jing, P., Ding-Mastera, J, Santos, J., and Ben-Akiva, M. (2020). Intercity Truck Route Choices Incorporating Toll Road Alternatives Using Enhanced GPS Data. Transportmetrica A: Transport Science. Vol. 16(3), 102017.

236. Tomaino, G., Teow, J., Carmon, Z., Lee, L. Ben-Akiva, M., Chen, C., Leong, W.Y., Li, Shanjun, Yang, N., and Zhao, J. (2020). Mobility as a service (MaaS): the importance of transportation psychology. Marketing Letters. Vol. 31, pp. 419-428.

237. Xie, Y., Zhang, Y., Akkinepally, A., and Ben-Akiva, M. (2020). A Personalized Choice Model for Managed Lane Travel Behavior. Transportation Research Record. Vol. 2674(7), pp. 442-455.

238. You, L., Zhao, F., Cheah, L., Jeong, K., Zegras, C., and Ben-Akiva, M. (2020). A Generic Future Mobility Sensing System for Travel Data Collection, Management, Fusion, and Visualization. IEEE Transactions on Intelligent Transportation Systems. Vol. 21(10), pp. 4149-4160.

239. Alho, A., Sakai, T., Chua, M.H., Raven, M., Hara, Y., and Ben-Akiva, M. (2021). Assessing the reproducibility of freight vehicle flows using tour and trip-based models for shipment-to-vehicle flow conversion. *Simulation Modelling Practice and Theory*. Vol. 107, 102207.

240. Aboutaleb, Y. M., Danaf, M., Xie, Y., and Ben-Akiva, M. (2021). Sparse covariance estimation in logit mixture models. *The Econometrics Journal*. Vol. 24, pp. 377-398.

241. Oh, S., Lentzakis, A., Seshadri, R., and Ben-Akiva, M. (2021). Impacts of Automated Mobility-on-Demand on Traffic Dynamics, Energy and Emissions: A Case Study of Singapore. *Simulation Modelling Practice and Theory*, Vol. 110, 102327, https://doi.org/10.1016/j.simpat.2021.102327

242. Zhang, H., Seshadri, R., Prakash, A., Antoniou, C., Pereira, F., and Ben-Akiva, M. (2021) Improving the Accuracy and Efficiency of Online Calibration for Simulation-based Dynamic Traffic Assignment. *Transportation Research Part C:*

Emerging Technologies, Vol. 128, 103195,
https://doi.org/10.1016/j.trc.2021.103195

243.   Hong, S., Zhao, F., Livshits, V., Gershenfeld, S., Santos, J., and Ben-Akiva, M.
(2021). Insights on data quality from a large-scale application of smartphone-based
travel survey technology in the Phoenix metropolitan area, Arizona, USA.
Transportation Research Part A: Policy and Practice, Vol. 154, pp. 413-429

244.   Alho, A., Cheng, C., Hieu, D.T., Sakai, T., Zhao, F., Ben-Akiva, M., and Cheah, L.
(2022). Online and in-person activity logging using a smartphone-based travel,
activity, and time-use survey. Transportation Research Interdisciplinary
Perspectives. Vol. 13, 100524. http://doi.org/10.1016/J.TRIP.2021.100524

245.   Alho, A., Oh, S., Seshadri, R., Dalla Chiara, G., Chong, W., Sakai, T., Cheah, L.,
and Ben-Akiva, M. (2022). An Agent-based Simulation Assessment of Freight
Parking Demand Management Strategies for Large Urban Freight Generators.
Research in Transportation Business and Management, 43(1): 100804

246.   Azadeh, S., Atasoy, B., Ben-Akiva, M., Bierlaire, M., and Maknoon, Y. (2022).
Choice-driven Dial-a-ride Problem for Demand Responsive Mobility Service.
Transportation Research Part B: Methodological, Vol. 161, pp.128-149

247.   Han, Y., Zegras, C., Pereira, F.C., and Ben-Akiva, M. (2022). A neural-embedded
discrete choice model: Learning taste representation with strengthened
interpretability. Transportation Research Part B: Methodological. Vol, 163, pp.
166-186.

248.   Hara, Y., Sakai, T., Alho, A. R., & Ben-Akiva, M. (2022). Screenline-Based Two-
Step Calibration and its Application to an Agent-Based Urban Freight Simulator.
Transportation Research Record, https://doi.org/10.1177/03611981221082562

249.   Hermawan, K., Seshadri, R., Sakai, T., Zegras, P. C., & Ben-Akiva, M. (2022).
Impact of Automated Mobility-On-Demand on Weekly Activity Patterns: A Study
of Singapore. Transportation Research Record, 2676(6), 340–352.
https://doi.org/10.1177/03611981221074376

250.   Oh, S., Kondor, D., Seshadri, R., Le, D., Alho, A., Zhou, M., Ben-Akiva, M.
(2022). Exploring the Operational Characteristics of Ride-sourcing in an Urban
Area. Research in Transportation Business & Management, Vol 43, 100827

251.   Sakai, T., Hara, Y., Seshadri, R., Alho, A., Hasnine, S., Jing, P., Chua, Z., and
Ben-Akiva, M. (2022). Household-based e-commerce demand modeling for an
agent-based urban transportation simulation platform. Transportation Planning and
Technology. Vol. 45(2), pp. 179-201

252. Calabro, G., Araldo, A., Oh, S., Seshadri, R., Inturri, G., and Ben-Akiva, M. (2023). Adaptive transit design: Optimizing fixed and demand responsive multi-modal transportation via continuous approximate. Transportation Research Part A: Policy and Practice, Vol. 171, 103643, https://doi.org/10.1016/j.tra.2023.103643

253. Chen, S., Seshadri, R., Azevedo, C., Akkinepally, A., Liu, R., Araldo, A., Jiang, Y., and Ben-Akiva, M. (2023). Market design for tradable mobility credits. Transportation Research Part C: Emerging Technologies, Vol. 151, 104121, https://doi.org/10.1016/j.trc.2023.104121

254. Danaf, M., Guevara, A., and Ben-Akiva, M. (2023). A Control-Function Correction for Endogeneity in Random Coefficients Models: The Case of Choice-Based Recommender Systems. Journal of Choice Modeling, Vol. 46, 100399, https://doi.org/10.1016/j.jocm.2022.100399

255. Lentzakis, A., Seshadri, R., and Ben-Akiva, M. (2023). Predictive distance-based road pricing — Designing tolling zones through unsupervised learning. Transportation Research Part A: Policy and Practice, Vol. 170, 103611, https://doi.org/10.1016/j.tra.2023.103611

256. Liu, R., Chen, S., Jiang, Y., Seshadri, R., Ben-Akiva, M., and Azevedo, C. (2023). Managing network congestion with a trip- and area-based tradable credit scheme. Transportmetrica B: Transport Dynamics. Vol. 11, No., 1, pp. 434-462 https://doi.org/10.1080/21680566.2022.2083034

257. Liu, R., Jiang, Y., Seshadri, R., Azevedo, C., and Ben-Akiva, M. (2023). Contextual Bayesian optimization of congestion pricing with day-to-day dynamics. Transportation Research Part A: Policy and Practice, Vol. 179, 103927, https://doi.org/10.1016/j.tra.2023.103927

258. You, L., Danaf, M., Guan, J., Zhao, F., Azevedo, C., Atasoy, B., and Ben-Akiva, M. (2023). A Federated Platform Enabling a Synergetic Collaboration among Devices, Data and Functions for Smart Mobility. IEEE Transactions on Intelligent Transportation Systems, Vol. 24, Iss. 4, pp. 4060-4074, https://doi.org/10.1109/TITS.2023.3236991

259. Jing, P., Seshadri, R., Sakai, T., Shamshiripour, A., Alho, A., Lentzakis, A., and Ben-Akiva, M. (2023). Evaluating congestion pricing schemes using agent-based passenger and freight microsimulation. arXiv preprint, https://doi.org/10.48550/arXiv.2305.07318

Proceedings of Refereed Conferences

1. Ben-Akiva, M. (1973), 'A Disaggregate Direct Demand Model for Simultaneous Choice of Mode and Destination,' Proceedings of the International Conference on Transportation Research, Bruges, Belgium

2. Richards, M.G. and Ben-Akiva, M. (1975), 'A Disaggregate Mode Choice Model for Work Trips in the Netherlands,' Proceedings of the 54th annual meeting of the Transportation Research Board, January 1975, Washington D.C.

3. Ben-Akiva, M., Lerman, S.R. and Manheim, M.L. (1976), 'Disaggregate Models: An Overview of Some Recent Research Results and Practical Applications,' *Proceedings of the Planning and Transport Research and Computations Seminar of Transportation models,* England

4. Ben-Akiva, M. and Lerman, S.R. (1977), 'Disaggregate Travel and Mobility Choice Models and Measures of Accessibility,' *Behavioral Travel Modelling,* (eds.) Hensher, D.A. and Stopher P.R., Proceedings of the Third International Conference on Behavioral Travel Modelling, Australia, 1977, Croom Helm, London 1979, pp. 654-679

5. Ben-Akiva, M. and Watanatada, T. (1977), 'Application of a Continuous Spatial Choice Logit Model,' *Structural Analysis of Discrete Data With Econometric Applications*, (eds.) Manski, C.F. and McFadden, D., Proceedings of the NBER-NST Conference on Decision Rules and Uncertainty, MIT Press, Cambridge, MA,1981

6. Koppelman, F.S. and Ben-Akiva, M. (1977), 'Aggregate Forecasting with Disaggregate Travel Demand Models Using Normally Available Data,' Proceedings of the World Conference on Transport Research, Rotterdam, The Hague

7. Ben-Akiva, M., Kullman, B.C., Sherman, L. and Daly, A. (1978), 'Aggregate Forecasting with a System of Disaggregate Travel Demand Models,' Proceedings of the Planning and Transport Research and Computations Summer Meeting

8. Ben-Akiva, M., Manheim, M.L. and Salomon, I. (1978), 'Policy Sensitive and Policy Responsive Transportation Planning,' *Traffic, Transportation and Urban Planning,* Proceedings of the International Conference, 1978, Tel-Aviv, International Forum Series, George Godwin, London, 1981

9. Ben-Akiva, M. (1979), 'Issues in Transferring and Updating of Travel-Behavioral Models,' Proceedings of the Fourth International Conference on Behavioral Travel Modelling, (eds.) Brog, W., Meyburg, A.H. and Stopher, P.R., Proceedings of New Horizons in Travel Behavior, Washington D.C., 1979, Heath, Lexington, MA,, 1981

10. Ben-Akiva, M., Manski, C.F. and Sherman, L. (1980), 'A Behavioral Model of Household Ownership and Use of Motor Vehicles and Its Application for Aggregate Forecasting,' Proceedings of the Planning and Transport Research and Computations Summer Meeting, London

11. Bergman, M.J., Ben-Akiva, M., Silman, L.A. and Pitschke, S.B. (1982), 'An Analysis of Interurban Route Choice in the Netherlands,' Proceedings of the Planning and Transport Research and Computations Summer Meeting, London

12. Ben-Akiva, M., Salomon, I. and Silman, L.A. (1983), 'Development and Application of Individual Choice Models for Holiday Travel,' Proceedings of the World Conference on Transport Research, Hamburg

13. Ben-Akiva, M., Bergman, M.L., Daly, A.J. and Ramaswamy, R. (1984), 'Modelling Interurban Route Choice Behavior,' Proceedings of the Ninth International Symposium on Transportation and Traffic Theory, Utrecht, The Netherlands

14. Swait, J.D. and Ben-Akiva, M. (1985), 'Analysis of the Effects of Captivity on Travel Time and Cost Elasticities,' *Behavioral Research for Transport Policy* , Proceedings of the 1985 International Conference on Travel Behavior, *Noordwijk,* The Netherlands,1985, VNU Science Press, Utrecht, The Netherlands, 1986

15. Ben-Akiva, M. (1987), 'Methods to Combine Different Data Sources and Estimate Origin-Destination Matrices,' *Transportation and Traffic Theory*, (eds.) Gartner, N. and Wilson N.H.M., Proceedings of the 10th International Symposium on Transportation and Traffic Theory, *Massachusetts Institute of Technology*, Cambridge, MA, 1987, Elsevier Science, New York, 1987

16. Ben-Akiva, M., Daly, A.J. and Gunn, H.F. (1987), 'Destination Choice Models: Design and Appraisal,' Proceedings of the Transport Planning Summer Annual Meeting, University of Bath, England

17. Ben-Akiva, M. and DePalma, A. (1987), 'Dynamical Models of Transportation Networks,' Proceedings of the PTRC Transport and Planning Summer Annual Meeting, University of Bath, England

18. Ben-Akiva, M., Morikawa, T. and Shiroishi, F. (1989), 'Analysis of the Reliability of Stated Preference Data in Estimating Mode Choice Models,' *Transport Policy, Management & Technology Towards 2001, vol. I,* Selected Proceedings of the Fifth World Conference on Transport Research, Yokohama, Japan

19. Ben-Akiva, M. and Morikawa, T. (1989), 'Data Fusion Methods and Their Applications to Origin-Destination Trip Tables,' *Transport Policy, Management & Technology Towards 2001, vol.I, Selected Proceedings of the Fifth World Conference on Transport Research*, Yokohama, Japan, pp. 279-293

20. Ben-Akiva, M. and Ramaswamy, R. (1989), 'Estimation of Latent Pavement Performance from Damage Measurements' Proceedings of the Third International Conference on Bearing Capacity of Roads and Airfields, Trondheim, Norway,

1990. An earlier and extended version of this paper appeared in *Transport Policy, Management & Technology Towards 2001, vol.I, Selected Proceedings of the Fifth World Conference on Transport Research*, Yokohama, Japan

21. Gershenfeld, S. and Atherton, T., Ben-Akiva, M. and Musetti, L. (1989), 'Context-Specific Choice Experiments for Multi-Featured Products: A Disk-by-Mail Survey Application', *Sawtooth Software Conference Proceedings*, Sun Valley, Idaho

22. Atherton, T., Ben-Akiva, M., McFadden, D. and Train, K. (1990), 'Micro-Simulation of Local Residential Telephone Demand Under Alternative Service Options and Rate Structures,' *Telecommunications Demand Modelling: An Integrated View* (eds.) de Fontenay A. et al., North-Holland

23. Ben-Akiva, M. and Morikawa, T. (1990), 'Estimation of Travel Demand Models from Multiple Data Sources,' *Transportation and Traffic Theory*, Proceedings of the Eleventh International Symposium in Transportation and Traffic Theory, Elsevier

24. Bolduc, D. and Ben-Akiva, M. (1991), 'A Multinominal Probit Formulation for Large Choice Sets', Proceedings of the 6th International Conference on Travel Behaviour vol.2, pp. 243-258

25. Ben-Akiva, M., Cantarella, G., Cascetta, E., de Ruiter, J., Whittaker, J. and Kroes, E. (1992) 'Real-time Prediction of Traffic Congestion,' The 3rd International Conference on Vehicle Navigation and Information Systems, pp. 557-562, doi: 10.1109/VNIS.1992.640246

26. Ben-Akiva, M. and Gunn, H. (1992), 'Forecasting Demand for Travel: New Technologies and Changing Demand,' Proceedings of the 1992 EUROSIM Conference, EUROSIM '92, Capri, Italy

27. Bradley, M., Ben-Akiva, M. and Bolduc, D. (1992), 'Estimation of Travel Choice Models with Randomly Distributed Values of Time,' *Transportation Planning Methods,* Proceedings of the 20th PTRC European Transport, Highways and Planning Summer Annual Meeting, Manchester, England

28. Hotz, A., Much, C., Goblick, T., Corbett, E., Waxman, A., Ashok, K., Ben-Akiva, M. and Koutsopoulos, H. (1992), 'A Distributed Hierarchical System Architecture for ATMS and ATIS,' *Surface Transportation and the Information Age: Proceedings of the 1992 Annual Meeting of IVHS America*, vol.2, Newport Beach, California

29. Humplick, F. and Ben-Akiva, M. (1992), 'Measurement Error Modelling for Infrastructure Inspection Systems,' *Technological Innovation and Network*

Management, vol. IV of Selected Proceedings of the 6th World Conference on Transport Research, Lyon, France

30. Madanat, S. and Ben-Akiva, M. (1992), 'Optimizing Infrastructure Management Decisions Under Measurement and Forecasting Uncertainty,' *Technological Innovation and Network Management, vol.IV of Selected Proceedings of the 6th World Conference on Transport Research*, Lyon, France

31. Ashok, K. and Ben-Akiva, M. (1993), 'Dynamic Origin-Destination Matrix Estimation for Real-Time Traffic Management Systems,' *Transportation and Traffic Theory*, (ed.) Daganzo, C.F., Elsevier, pp. 465-484

32. Ben-Akiva, M., Kaysi, I., Koutsopoulos, H., Polydoropoulou, A. and Whitworth, P. (1994), 'Design of an Integrated Data Collection Program to Support Modeling of User Response to ATIS Services,'*Moving Toward Deployment: Proceedings of the IVHS America 1994 Annual Meeting,* Atlanta, Georgia, vol.2, pp. 969-979

33. Hotz, A.F., Koutsopoulos, H., Ben-Akiva, M., Bernstein, D., Chachich, C., Mishalani, R., Jonnalagadda, N.V., Yang, Q., Brindley, B., Krechmer, D. and Marcus, C.T. (1994), 'Evaluating Traffic Control Systems Using Microsimulation: The Central Artery/Tunnel Integrated Project Control System (IPCS),' *Moving Toward Deployment: Proceedings of the IVHS America 1994 Annual Meeting,* Atlanta, Georgia, vol.1, pp. 1-7

34. Ben-Akiva, M., Koutsopoulos, H., Mishalani, R., Yang, Q. (1994), 'Integrated Simulation Framework for Evaluating Dynamic Traffic Management Systems,' T*owards an Intelligent Transport System*: *Proceedings of the First World Congress on Applications of Transport Telematics and Intelligent Vehicle-Highway Systems,* vol.2, Paris, December 1994, Artech House, London, pp. 863-870

35. Ben-Akiva, M., Cascetta, E., Gunn, H., Smulders, S. and Whittaker, J. (1994), 'DYNA: A Real-Time Monitoring and Prediction System for Inter-Urban Motorways,' *Towards an Intelligent Transport System: Proceedings of the First World Congress on Applications of Transport Telematics and Intelligent Vehicle-Highway* Systems*, vol.3, Paris, December 1994, Artech House, London, pp. 1166-1173

36. Koutsopoulos, H., Ben-Akiva, M., Mishalani, R. and Ahmed, K. (1995), 'Modeling Freeway Lane Changing Behavior,' *Proceedings of the Applications of Advanced Technologies in Transportation Conference,* (eds.) Stephanedes, Y. and Filippi, F., Capri

37. Ahmed, K.I, Ben-Akiva, M., Koutsopoulos, H. and Mishalani, R.G. (1996), 'Models of Freeway Lane Changing and Gap Acceptance Behavior,' *Transportation and Traffic Theory*: *Proceedings of the 6th International*

Symposium on Transportation Traffic Theory, (ed.). Lesort, J.B., Pergamon, pp. 501-515

38. Ashok, K., Ben-Akiva, M., Bierlaire, M., Chachich, A., Hotz, A.F., Koutsopoulos, H., Mishalani, R.G. and Yang, Q. (1996), 'Tools for Design and Operation of Dynamic Traffic Management Systems,' *Proceedings of the 3rd annual World Congress on Intelligent Transportation Systems,* Orlando, Florida

39. Ben-Akiva M., Koutsopoulos, H., Mishalani, R.G. and Yang, Q. (1996), 'A Simulation Laboratory for Testing traffic Management Systems,' *Proceedings of the IASTED/ISMM International Conference on Modeling and Simulation,* Pittsburgh, Pennsylvania, (ed.) Hamza M.Z., International Association of Science and Technology for Development

40. Bernardino, A. and Ben-Akiva, M. (1996), 'Demand for Telecommuting – Modeling the Adoption Process,' *Travel Behavior, 7th WCTR Proceedings*, (eds.) Hensher, King, Oum, vol. 1, Elsevier Science, Pergamon

41. Antoniou, C., Ben-Akiva, M., Bierlaire, M. and Mishalani, R. (1997), 'Demand Simulation for Dynamic Traffic Assignment,' *Proceedings of the 8th International Federation of Automatic Control (IFAC) Symposium on Transportation Systems,* Chania, Greece

42. Ben-Akiva, M., Bierlaire, M., Bottom, J., Koutsopoulos, H. and Mishalani, R. (1997), 'Development of a Route Guidance Generation System for Real-Time Application,' Proceedings of the 8th International Federation of Automatic Control (IFAC) Symposium on Transportation Systems, Chania, Greece

43. Chen, O., Hotz, A.F. and Ben-Akiva, M. (1997), 'Development and Evaluation of a Dynamic Ramp Metering Control Model,' Proceedings of the 8th International Federation of Automatic Control (IFAC) Symposium on Transportation Systems, Chania, Greece

44. Polydoropoulou, A., Ben-Akiva, M. and Gopinath, D. (1997), 'Modeling User Adoption of Advanced Traveler Information Systems (ATIS),' Proceedings of the 8th International Federation of Automatic Control (IFAC) Symposium on Transportation Systems, Chania, Greece

45. Bottom, J., Ben-Akiva M., Bierlaire, M., Chabini, I., Koutsopoulos, H. and Yang, Q. (1999), 'Investigation of Route Guidance Generation Issues by Simulation with DynaMIT,' *Transportation and Traffic Theory: Proceedings of the 9th International Symposium on Transportation and Traffic Theory*, (ed.) Ceder, A., Pergamon, pp. 577-600

46. Bowman, J., Bradley, M., Shiftan, Y., Lawton, T.K. and Ben-Akiva, M. (1999), 'Demonstration of an Activity Based Model System for Portland,' *Proceedings of*

the 8th World Conference on Transportation Research (WCTR), vol.3, Pergamon, Antwerp, pp. 171-180

47. Ben-Akiva, M., Bierlaire, M., Burton, D., Koutsopoulos, H. and Mishalani, R. (2000), 'Simulation-based Tools for Dynamic Traffic Assignment: DynaMIT and its Applications,' *Proceedings of ITS America 10th Annual Meeting,* Boston, ITS America Press

48. Ben-Akiva, M., Cuneo, D., Hasan, M., Jha, M., Koutsopoulos, H. and Yang, Q. (2000), 'Simulation Based Tools for Traffic Management: MITSIMLab and its Application,' *Proceedings of ITS America 10th Annual Meeting,* Boston, ITS America Press

49. Ben-Akiva, M., Bierlaire, M., Koutsopoulos, H. N. and Mishalani, R. (2001), "Real-time simulation of traffic demand-supply interactions within DynaMIT," in M. Gendreau and P. Marcotte (eds), *Transportation and network analysis: current trends. Miscellenea in honor of Michael Florian*, Kluwer Academic Publishers

50. Ben-Akiva, M., Walker, J., Bernardino, A.T., Gopinath, D., Morikawa, T., and Polydoropoulou, A. (2001), Integration of Choice and Latent Variable Models, in *International Association of Traveler Behavior Research (IATBR) book from the 1997 Conference*, Austin, Texas

51. Bekhor, S., Ben-Akiva, M. and Ramming, M.S. (2003), 'Estimating Route Choice Models for Large Urban Networks,' *Selected Proceedings of the 9th WCTR,* (eds.) Park, C.H.et al., Elsevier/Pergamon, Seoul

52. Ben-Akiva, M., Cortes, M., Davol, A., Koutsopoulos, H. and Toledo, T. (2003), 'Micro-simulation of Urban Networks', *Selected Proceedings of the 9th WCTR*, (eds.) Park, C.H. et al., Elsevier/Pergamon, Seoul

53. Ben-Akiva, M., Cortes, M., Davol, A., Koutsopoulos, H. and Toledo, T. (2003), 'MITSIMLab: Enhancements and Applications for Urban Network,' *Selected Proceedings of the 9th WCTR,* (eds.) Park, C.H. et al., Elsevier/Pergamon, Seoul

54. Toledo T., Koutsopoulos, H.N., Ben-Akiva, M. and Jha, M. (2004), 'Microscopic traffic simulation: models and applications', *Proceedings of the International Symposium on Transport Simulation,* (eds.) Kitamura, R., and Kuwahara, M., Kluwer

55. Ben-Akiva M., Darda D., Jha M., Koutsopoulos H.N and Toledo T. (2004), 'Calibration of microscopic traffic simulation models with aggregate data', *Preprints of the 83rd Transportation Research Board Annual Meeting*, Washington, D.C.

56. Jha M., Gopalan G., Garms A., Mahanti B.P., Toledo T. and Ben-Akiva M. (2004), 'Development and calibration of a large scale microscopic simulation model', *Preprints of the 83rd Transportation Research Board Annual Meeting*, Washington, D.C.

57. Balakrishna R., Ben-Akiva M, Koutsopoulos H.N and Toledo T. (2004), 'Traffic simulation model calibration framework using aggregate data', *Preprints of the 5th Triennial Symposium on Transportation Analysis*, Le Gosier, Guadeloupe

58. Scariza J., Toledo T. and Ben-Akiva M. (2004), 'Evaluation of coordinated and local ramp metering algorithms using microscopic traffic simulation', *Proceedings of the 10th World Conference on Transport Research*, Istanbul, Turkey

59. Jha, M., Gopalan G., Garms A., Ben-Akiva M., Mahanti B.P. and Toledo T. (2004), 'Large scale microscopic traffic simulation modeling', *Proceedings of the 10th World Conference on Transport Research*, Istanbul, Turkey.

60. Antoniou C., Ben-Akiva M., and Koutsopoulos H.N. (2004), 'Incorporating Automated Vehicle Identification data into Origin-Destination Estimation', *Preprints of the 83rd Transportation Research Board Annual Meeting*, Washington, D.C.

61. Antoniou, C., Ben-Akiva M., and Koutsopoulos H.N. (2004), 'On-line calibration of traffic prediction models', *Proceedings of the 7th International IEEE Conference on Intelligent Transportation Systems*, Washington, D.C.

62. Antoniou, C., Ben-Akiva M., and Koutsopoulos H.N. (2004), 'Incorporating Automated Vehicle Identification information into Origin-Destination Estimation and Prediction', *Proceedings of the 10th World Conference on Transport Research*, Istanbul, Turkey.

63. Antoniou C., Ben-Akiva M., and Koutsopoulos H.N. (2004), On-line calibration of traffic dynamics models, in *Proceedings of the 2nd International Congress on Transportation Research in Greece*, Athens, Greece.

64. Balakrishna, R., Koutsopoulos, H. and Ben-Akiva, M. (2005), 'Calibration and Validation of Dynamic Traffic Assignment Systems,' *Transportation and Traffic Theory: Proceedings from the 16th International Symposium on Transportation and Traffic Theory* (ed.) Mahmassani, H., Elsevier Science, pp. 407-426

65. Ben-Akiva, M. and Antoniou, C. (2005), 'Predictive Traffic Information and Travel Time Reliability: DynaMIT Case Studies,' *Proceedings of Symposium: The Reliability of Traveling and the Robustness of Transport Systems*, TRAIL Research School, Delft

66. Kurosawa, T., Inoue, A., Nishimatsu, K., Ben-Akiva, M. and Bolduc, D. (2005), 'Service Demand Analysis: Improved Forecasting using Model Updating', *Intelligent Engineering Systems Through Artificial Neural Networks*, vol.15, NY, ASME Press

67. Nishimatsu, K., Inoue, A., Kurosawa, T., Ben-Akiva, M. and Bolduc, D. (2005), 'Customer-Choice Behavior Modeling with Latent Perceptual Variables', *Intelligent Engineering Systems Through Artificial Neural Networks*, vol.15, NY, ASME Press

68. Antoniou, C., Ben-Akiva, M. and Koutsopoulos, H. (2006), 'Dynamic Traffic Demand Prediction Using Conventional and Emerging Data Sources,' Proceedings of the IEEE Intelligent Transport Systems, Toronto, Canada

69. Antoniou, C., Ben-Akiva, M. and Koutsopoulos, H.N. (2006), 'Non-linear Kalman Filtering Algorithms for On-line Calibration of Dynamic Traffic Assignment Models', Proceedings of IEEE Intelligent Transport Systems Conference , Toronto, Canada

70. Antoniou, C. and Ben-Akiva, M. (2006), 'Impact of predictive traffic information on experienced travel time and its variability', Proceedings of the 3rd International Conference of Transport Research, Thesaloniki, Greece

71. Balakrishna, R., Ben-Akiva, M. and Koutsopoulos, H. (2006), 'Time-Dependent Origin-Destination Estimation without Assignment Matrices,' Second International Symposium of Transport Simulation, Switzerland

72. Balakrishna, R., Ben-Akiva, M. and Wen, Y. (2006), 'Observability in estimating time dependent origin-destination flows from traffic counts', Proceeding of the first International Symposium on Dynamic Traffic Assignment, University of Leeds., pp. 205-214

73. Florian, D., Balakrishna, R., Ben-Akiva, M. and Wen, Y., (2006), 'Evaluation of On-line Dynamic Traffic Assignment using Micro-Simulation,' Second International Symposium of Transport Simulation, Switzerland

74. Wen, Y., Balakrishna, R., Ben-Akiva, M. and Smith, S. (2006), 'On-line Deployment of   Dynamic Traffic Assignment: Architecture and Run-time Management,' *IEEE Transactions on Intelligent Transport Systems*, vol.153, no.1, pp. 76-84

75. Antoniou, C., Ben-Akiva, M. and Koutsopoulos, H.N. (2007) 'Non–linear Kalman Filtering Algorithms for On–line Calibration of Dynamic Traffic Assignment Models'. *IEEE Transactions on Intelligent Transportation Systems*, vol.8, no.4, pp. 661-670

76. Balakrishna, R., Antoniou, C., Ben-Akiva, M., Koutsopoulos, H. and Wen, Y., (2007), 'Calibration of Microscopic Traffic Simulation Models: Methods and Application,' Proceedings of the 86th annual meeting of the Transportation Research Board, Washington D.C.

77. Ben-Akiva, M. and Abou Zeid, M., (2007), 'Methodological issues in modeling time-of-travel preferences', Proceedings of the 11th World Conference on Transportation Research, Berkeley, California, and Proceedings of the Kuhmo Nectar Conference, Faculty of Economics and Business, University of Urbino, Italy

78. Choudhury, C., Toledo, T., Rao, A., Lee, G. and Ben-Akiva, M. (2007) 'State dependence in Driver Behaviour models', *Transportation and Traffic Theory 2007:Papers selected for presentation at ISTTT17, a peer reviewed series since 1959,* (ed.) Allsop, R., Bell, M. and Heydecker, B., Elsevier, UK, pp. 711-733

79. Wen, Y**.**, Balakrishna, R., Ben-Akiva, M. and Smith, S. (2007), 'Online deployment of dynamic traffic assignment: evaluation and lessons,' Proceeding of the 11th World Conference on Transport Research, University of California, Berkeley and Proceeding of the 87th annual meeting of the Transportation Research Board, Washington D.C.

80. Abou Zeid, M., Ben-Akiva, M. and Bierlaire, M. (2008), 'Happiness and travel behavior modification,' Proceedings of the European Transport Conference, October 2008, The Netherlands

81. Balakrishna, R., Antoniou, C., Koutsopoulos, H., Wen, Y. and Ben-Akiva, M., (2008) 'Calibrating Speed-Density Functions for Mesoscopic Traffic Simulation', Proceedings CD of the Symposium on the Fundamental Diagram: 75 Years (Greenshields 75 Symposium), July 8-10, 2008, Woods Hole, MA.

82. Choudhury, C., Ramanujam, V. and Ben-Akiva, M. (2008), 'A lane changing model for urban arterials', Proceedings of the 3rd International Symposium on Transport Simulation, August 2008, Queensland, Australia

83. Gao, S., Frejinger, E. and Ben-Akiva, M. (2008), 'Adaptive Route Choice Models', Proceedings of the 10th International Conference on Applications of Advanced Technologies in Transportation, May 2008, Athens, Greece

84. Guevara, C. and Ben-Akiva, M. (2008), 'A Lagrange multiplier test for the validity of instruments in MNL models: an application to residential choice,' Proceedings of the European Transport Conference, October 2008, The Netherlands

85. Hess, S., Ben-Akiva, M., Gopinath, D. and Walker, J. (2008), 'Some developments in latent class modeling,' Proceedings of the European Transport Conference, October 2008, The Netherlands.

86. Ramanujam, V., Choudhury, C. and Ben-Akiva, M. (2008), 'An extended lane changing model to capture lane-change duration,' Proceeding DVD of the 87th annual meeting of the Transportation Research Board, January 2008, Washington D.C.

87. Rathi, V., Antoniou, C., Ben-Akiva, M. and Wen, Y., (2008), 'Optimal Variable Message Sign location identification using genetic algorithms,' Proceedings of the 10th International Conference on Application of Advanced Technologies in Transportation, May 2008, Athens, Greece, pp. 27-31

88. Rathi, V., Antoniou, C**.,** Wen, Y., Ben-Akiva, M. and Cusack, M., (2008), 'Assessment of the Impact of Dynamic Prediction-Based Route Guidance using a simulation-based, closed-loop framework,' Proceeding DVD of the 87th annual meeting of the Transportation Research Board, January 2008, Washington, D.C

89. Shiftan, Y. and Ben-Akiva, M. (2008), 'A practical policy sensitive activity-based model,' Proceedings of the 3rd Israeli-Netherland Workshop in Regional Science, November 2008, Jerusalem

90. Wen, Y., Balakrishna, B., Ben-Akiva, M. and Scott, S. (2008) 'Online Deployment of Dynamic Traffic Assignment: Evaluation and Lessons,' Proceeding DVD of the 87th annual meeting of the Transportation Research Board, January 2008, Washington D.C.

91. Choudhury, C., Ben-Akiva, M. and Ramanujam, V. (2009), 'Modeling acceleration decisions for freeway merges', Proceedings of the Transportation Research Board Annual Meeting, January 2009.

92. Choudhury, C., Yang, L., Abreu, J., and Ben-Akiva, M. (2009), 'Dealing with Large Numbers of Travel Modes in Stated Preference Surveys,' *Proceedings of the 12th Annual Conference of the International Associate of Travel Behavior Research*, Jaipur, India.

93. Hess, S., Ben-Akiva, M., Gopinath, D. and Walker, J. (2009), 'Taste heterogeneity, correlation, and elasticities in latent class choice models' Proceedings of the Transportation Research Board Annual Meeting, January 2009.

94. Huang, E., Antoniou, C., Lopes, J., Wen, Y,, and Ben-Akiva, M., (2009), 'Model-based data fusion framework for real-time traffic prediction', Presented at Cors-Informs conference, Toronto, Canada

95. Huang, E., Antoniou, C., Wen, Y. And Ben-Akiva M., (2009), "Real-time multi-sensor multi-source data fusion using DTA models', Presented at IEEE conference, St. Louis, USA

96. Ben-Akiva, Antoniou, C., Huang, E., Milkovitz, M., and Lopes, J. (2010), 'DynaMIT 2.0: Next Generation Real-Time Dynamic Traffic Assignment System', *Proceedings of the 2nd International Conference on Advances in System Simulation (SIMUL 2010)*, Nice, France

97. Huang, E., Antoniou, C., Lopes, J., Wen, Y, and Ben-Akiva, M. (2010), 'Accelerated On-line Calibration of Dynamic Traffic Assignment using Distributed Stochastic Gradient Approximation', *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC)*, Madeira, Portugal

98. Kurosawa, T., Bolduc, D., Ben-Akiva, M., Inoue, A., and Nishimatsu, K. (2010), 'Modeling the choice of internet access and IP telephony', *Proceedings of the IADIS International Conference on e-Society*, Porto, Portugal

99. Lopes, J., Huang, E., Antoniou, C., and Ben-Akiva, M. (2010), 'Traffic and Mobility Data Collection for Real- Time Applications', *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC)*, Madeira, Portugal

100.   Ben-Akiva, M. (2010), 'Planning and Action in a Model Choice' In S. Hess and A. Daly, eds. *Choice Modelling: The State-of-the-Art and the State-of-Practice, Proceedings from the Inaugural International Choice Modelling Conference*. Bingley, UK: Emerald Group Publishing, pp. 19-34

101.   Abou-Zeid, M., and Ben-Akiva, M. (2010), 'A Model of Travel Happiness and Mode Switching. In S. Hess and A. Daly, eds. *Choice Modelling: The State-of-the-Art and the State-of-Practice, Proceedings from the Inaugural International Choice Modelling Conference*. Bingley, UK: Emerald Group Publishing, pp. 289-305

102.   Guevara, C. and Ben-Akiva, M. (2010), 'Addressing endogeneity in discrete choice models: assessing control-function and latent-variable methods,' . In S. Hess and A. Daly, eds. *Choice Modelling: The State-of-the-Art and the State-of-Practice, Proceedings from the Inaugural International Choice Modelling Conference*. Bingley, UK: Emerald Group Publishing, pp. 353-370

103.   Guevara, C., and Ben-Akiva, M. (2011), 'Sampling of Alternatives in Multivariate Extreme Value (MEV) Models, In *Proceedings of the Chilean Conference in Transportation Engineering*, Santiago de Chile

104. Guevara, C., and Ben-Akiva, M. (2011), 'Change of Scale and Forecasting with the Control-Function Method in Logit Models', In *Proceedings of the Second International Choice Modelling Conference*, Leeds, UK

105. Xiao, Y., Low, D., Bandara, T., Pathak, P., Lim, H., Goyal, D., Santos, J., Cottrill, C., Pereira, F., Zegras, C., and Ben-Akiva, M. (2012), 'Transportation activity analysis using smartphones', *Proceedings of the 2012 IEEE Consumer Communications and Networking Conference.*

106. Basak, K., Hetu, S., Li, Z., Azevedo, C., Loganathan, H., Toledo, T., Xu, R., Xu, Y, Peh, L, and Ben-Akiva, M. (2014), 'Modeling reaction time within a traffic simulation model', *Proceedings of the 2013 IEEE 16th International Conference on Intelligent Transportation Systems,* October 6-9, 2013.

107. Wu, F., Lim, H., Pereira, F., Zegras, C., and Ben-Akiva, M. (2013), 'A user-centric mobility sensing system for transportation activity surveys', *Proceedings of the 11th ACM Conference on Embedded Networked Sensor Systems,* Article No. 74

108. Lima Azevedo, C., Cardoso, J.L., Ben-Akiva, M. (2014), "Vehicle tracking using the k-shortest paths algorithm and dual graphs." *Transportation Research Procedia*, Vol. 1 (1) 2014, pp. 3-11.

109. Lima Azevedo, C., Cardoso, J. L., Ben-Akiva, M., Costeira, J. P., Marques, M. (2014), "Automatic Vehicle Trajectory Extraction by Aerial Remote Sensing." *Procedia - Social and Behavioral Sciences*, Vol. 111, pp. 849-858.

110. Vinh-An V., Park, G., Tan, G., and Ben-Akiva, M. (2014), "A simulation-based Framework for the Generation and Evaluation of Traffic Management Strategies." in Proceedings of 47th Annual Simulation Symposium, part of *SpringSim* 2014.

111. Zhao, F., Ghorpade, A., Pereira, F., Zegras, C., and Ben-Akiva, M. (2015), 'Stop detection in smartphone-based travel surveys', *10th International Conference on Transport Survey Methods Transport Research Procedia, Special issue on Transport Survey Methods: Embracing Behavioral and Technological Changes,* Vol. 11, pp. 218-226.

112. Zhao, F., Ghorpade, A., Pereira, F., Zegras, C., and Ben-Akiva, M. (2015), 'Quantifying mobility: pervasive technologies for transport modeling', *Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2015 ACM International Symposium on Wearable Computers,* pp. 1039-1044.

113. Lu, Y., Seshadri, R., Pereira, F., O'Sullivan, A., Antoniou, C., and Ben-Akiva, M. (2015), 'DynaMIT2.0: Architecture Design and Preliminary Results on

Real-Time Data Fusion for Traffic Prediction and Crisis Management', *Proceedings of the 2015 IEEE 18th International Conference on Intelligent Transportation Systems,* September 15-18, 2015.

114. Sharif Azadeh, S., Atasoy, B., Ben-Akiva, M., and Bierlaire, M. (2016), 'A Choice-based Integrated Assortment Optimization and Dynamic Pricing for a Flexible Mobility on Demand System', *Proceedings of the 9th Triennial Symposium on Transportation Analysis (TRISTAN)*, June 13-17, 2016.

115. Alho, A., Bhavathrathan, B., Stinson, M., Gopalkrishnan, R., Le, D., and Ben-Akiva, M. (2017), "A Multi-scale Agent-based Modelling Framework for Urban Freight Distribution", *Proceedings of the 20th EURO Working Group on Transportation*, September 4-6, 2017, Budapest, Hungary

116. Nahmias-Biran, B., Kumar, N., Prakash, A., Seshadri, R., Azevedo, C., and Ben-Akiva, M. (2017), "A Modeling and Simulation Framework for Taxi Driver Behavior and Centralized Taxi Operations", *Proceedings of the 6th Symposium of the European Association for Research in Transportation (hEART 2017),* Haifa, Israel, September 12-14, 2017

117. Azevedo, C., Seshadri, R., Gao, S., Atasoy, B., Akkinepally, A. P., Christofa, E., Zhao, F., Trancik, J., & Ben-Akiva, M. (2018). Tripod: Sustainable travel incentives with prediction, optimization, and personalization. *In Proceedings of the 97th Annual Meeting of the Transportation Research Board,* Washington D.C., USA

118. Fournier, N., Chen, S., De Lima, I., Needell, Z., Deliali, A., Araldo, A., Prakash, A., Azevedo, C., Christofa, E., Trancik, J., and Ben-Akiva, M. (2018), "Integrated simulation of activity-based demand and multi-modal dynamic supply for energy assessment", *Proceedings of the 21st International Conference on Intelligent Transportation Systems (ITSC),* pp. 2277-2282, IEEE

119. Gross, E., Oke, J., Akkinepally, A., Nahmias-Biran, B.H., Azevedo, C.L., Zegras, P.C., Ferreira, J. and Ben-Akiva, M., 2019. Accessibility and Energy Consumption Evaluation under Different Strategies of Mobility On-Demand Deployment (No. 19-02656). *98th Annual Meeting of the Transportation Research Board*, Washington D.C., USA

120. A. F. Lentzakis, R. Seshadri and M. Ben-Akiva, "Affinity Matrix Learning through Subspace Clustering for Tolling Zone Definition," 2021 7th International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS), 2021, pp. 1-6, doi: 10.1109/MT-ITS49943.2021.9529297.

IX. Appendix B: Materials Relied Upon

Legal Filings and Depositions

- o First Amended Complaint, Case No. 3:23-cv-00522-EMC: Christopher McKay, Terry Myers, and Dawn Outlaw v. Saverac Company, Inc.

- o Defendant's First Supplemental Responses and Objections to Plaintiff's First Set of Interrogatories, Case No. 23-cv-00522-EMC

Documents Produced in Litigation

- o "Shooters - Nov.'22 Brand Meeting Presentation", Sazerac-CM_00078975

- o "IWSR - No & Low Alcohol Strategic Study - Dec 2022 – US", Sazerac-CM_00103516

- o "Sazerac_RNDC C-Store Deep Dive 11.11.20", Sazerac-CM_0001580

Published Papers and Public Webpages

- o Ben-Akiva, M., McFadden, D. and Train, K. (2019), "Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis", Foundations and Trends® in *Econometrics*: Vol. 10: No. 1-2. http://dx.doi.org/10.1561/0800000036,

- o Derpanopoulos, G., Overmann, J. and Wazzan, C.P., 2021. The use of conjoint analysis in high-stakes litigation: A historical review up to Navarro et. al., v. Procter and Gamble, which withstood a rigorous Daubert challenge. *J. Pat. & Trademark Off. Soc'y*, *102*, pp.502-526.

- o Diamond, S. (2011), "Reference Guide on Survey Research". In *Reference Manual on Scientific Evidence*: Third Edition, Federal Judicial Center/National Academy of Sciences.

- o Diamond, S., & Swann, J. B. (Eds.) (2012). *Trademark and Deceptive Advertising Surveys: Law, Science, and Design*. American Bar Association, Section of Intellectual Property Law.

- o Horvath, A.T. "*Damages Estimation in Consumer Deception: Class Actions* Legal and Methodological Issues, Chapter 13 in Gersen, J.E. and Steckel, J.H. eds. (2023). *The Cambridge Handbook of Marketing and the Law*. Cambridge University Press.

- o Werner, D. and Glasgow, G. (2021). DAMAGE METHODOLOGY TRENDS WITHIN FALSE ADVERTISING AND PRODUCT DEFECT CLASS ACTIONS. *Competition Journal of the Antitrust and Unfair Competition Law Section of the California Lawyers Association*, *31*(1).

X.   Appendix C: Alphabetical List of Acronyms

ABV: Alcohol by Volume

CBC: Choice-based Conjoint

HB: Hierarchical Bayes